Draft Permit #72683

PLACE ID #2512

PERMITTEE: **FREEPORT-MCMORAN MORENCI INC.**
FACILITY: **FREEPORT-MCMORAN MORENCI**
PERMIT TYPE **Class I Air Quality Permit**
DATE ISSUED: **DRAFT**
EXPIRY DATE:

SUMMARY

This Class I air quality permit is issued to Freeport-McMoRan Morenci Inc**.,** the Permittee, for the continued operation of the copper ore mining and processing operations at the facility located at Morenci in Greenlee County, Arizona. This permit renews and supersedes Class I Air Quality Permit No. 57883.

The facility is classified as a Class I Major Source pursuant to Arizona Administrative Code (A.A.C.) R18-2-101.75.c. The potential to emit (PTE) of particulate matter less than or equal to 10 microns in aerodynamic diameter (PM_{10}), particulate matter less than or equal to 2.5 microns in aerodynamic diameter ($PM_{2.5}$), carbon monoxide (CO), and nitrogen oxides (NO_X) is greater than 100 tons per year. The facility has accepted voluntary emissions and operating restrictions and the PTE from the facility is limited by enforceable permit conditions to below 250 tons per year for each regulated new source review (NSR) pollutant. Thus, the facility is not a major source as defined under A.A.C. R18-2-401 for the purposes of the Prevention of Significant Deterioration (PSD) program. The embedded Metcalf Combined Cycle Power Plant (MCCPP) has a PTE above the PSD major source thresholds (for a categorical source located in an attainment area) such that it is considered a PSD major source.

This permit is issued in accordance with Arizona Revised Statutes (ARS) 49-426. It contains requirements from Title 18, Chapter 2 of the A.A.C. and Title 40 of the Code of Federal Regulations. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and Title 40 of the Code of Federal Regulations (CFR), except as otherwise defined in this permit.

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ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

A. This permit is valid for a period of five (5) years from the date of issuance.
[ARS § 49-426.F, A.A.C. R18-2-306.A.1]

B. The Permittee shall submit an application for renewal of this permit at least six (6) months, but not more than eighteen (18) months, prior to the date of permit expiration.
[A.A.C. R18-2-304.D.2]

II. COMPLIANCE WITH PERMIT CONDITIONS

A. The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
[A.A.C. R18-2-306.A.8.a]

B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
[A.A.C. R18-2-306.A.8.b]

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

A. The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[A.A.C. R18-2-306.A.8.c]

B. The permit shall be reopened and revised under any of the following circumstances:

1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of it terms and conditions has been extended pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term;
[A.A.C. R18-2-321.A.1.a]

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;

[A.A.C. R18-2-321.A.1.b]

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; and

[A.A.C. R18-2-321.A.1.c]

4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

[A.A.C. R18-2-321.A.1.d]

C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

[A.A.C. R18-2-321.A.2]

IV. POSTING OF PERMIT

A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:

1. Current permit number; or

2. Serial number or other equipment identification number (equipment ID number) that is also listed in the permit to identify that piece of equipment.

[A.A.C. R18-2-315.A]

B. A copy of the complete permit shall be kept on site.

[A.A.C. R18-2-315.B]

V. FEE PAYMENT

A. The Permittee shall pay fees to the Director pursuant to ARS § 49-426(E) and A.A.C. R18-2-326.

[A.A.C. R18-2-306.A.9 and -326]

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety (90) days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

[A.A.C. R18-2-327.A]

B. The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.B.

[A.A.C. R18-2-327.B]

VII. COMPLIANCE CERTIFICATION

A. The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

[A.A.C. R18-2-309.2.a]

B. The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;

[A.A.C. R18-2-309.2.c.i]

2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period,

[A.A.C. R18-2-309.2c.ii]

3. Status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certifications shall identify each deviation (including any deviations reported pursuant to Condition XI.B of this Attachment) during the period covered by the certification and take it into account for consideration in the compliance certification;

[A.A.C. R18-2-309.2.c.iii]

4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

[A.A.C. R18-2-309.2.c.iii]

5. Other facts the Director may require to determine the compliance status of the source.

[A.A.C. R18-2-309.2.c.iv]

C. A copy of all compliance certifications shall also be submitted to the EPA Administrator.

[A.A.C. R18-2-309.2.d]

D. If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above. The progress reports shall contain the information required by A.A.C R18-2-309.5.d.

[A.A.C. R18-2-309.5.d]

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

Any document required to be submitted by this permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall

state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[A.A.C. R18-2-309.3]

IX. INSPECTION AND ENTRY

Upon presentation of proper credentials, the Permittee shall allow the Director or the authorized representative of the Director to:

A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;

[A.A.C. R18-2-309.4.a]

B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;

[A.A.C. R18-2-309.4.b]

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;

[A.A.C. R18-2-309.4.c]

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

[A.A.C. R18-2-309.4.d]

E. Record any inspection by use of written, electronic, magnetic and photographic media.

[A.A.C. R18-2-309.4.e]

X. ACCIDENTAL RELEASE PROGRAM

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

[40 CFR Part 68]

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

[A.A.C. R18-2-310.01.A, B, and C]

1. Excess emissions shall be reported as follows:

   a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

      (1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XI.A.1.b below.

(2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XI.A.1.a(1) above.

[A.A.C. R18-2-310.01.A]

b. The report shall contain the following information:

(1) Identity of each stack or other emission point where the excess emissions occurred;

[A.A.C. R18-2-310.01.B.1]

(2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

[A.A.C. R18-2-310.01.B.2]

(3) Time and duration, or expected duration, of the excess emissions;

[A.A.C. R18-2-310.01.B.3]

(4) Identity of the equipment from which the excess emissions emanated;

[A.A.C. R18-2-310.01.B.4]

(5) Nature and cause of such emissions;

[A.A.C. R18-2-310.01.B.5]

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;

[A.A.C. R18-2-310.01.B.6]

(7) Steps that were or are being taken to limit the excess emissions; and

[A.A.C. R18-2-310.01.B.7]

(8) If the excess emissions resulted from startup or malfunction, a list of the steps taken to comply with any permit procedures governing source operation during periods of startup or malfunction.

[A.A.C. R18-2-310.01.B.8]

2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XI.A.1 above.

[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable

requirement contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or timeframe shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations according to the following schedule:

1. Notice that complies with A.A.C. R18-2-310.01.A is prompt for deviations that constitute excess emissions;

[A.A.C. R18-2-306.A.5.b.i]

2. Notice that is submitted within two working days of discovery of the deviation is prompt for deviations of permit conditions identified by Condition I.B.3 of Attachment "B";

[A.A.C. R18-2-306.A.5.b.ii]

3. Except as provided in Conditions XI.B.1 and 2 above, prompt notification of all other types of deviations shall be every 6-months, concurrent with the semi-annual compliance certifications required in Section VII, and can be submitted via the "Annual/Semiannual Deviation Monitoring Report" form available on the Arizona Department of Environmental Quality Website.

[A.A.C. R18-2-306.A.5.b.ii]

C. Emergency Provision

1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[A.A.C. R18-2-306.E.1]

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XI.C.3 below is met.

[A.A.C. R18-2-306.E.2]

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

[A.A.C. R18-2-306.E.3]

a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

[A.A.C. R18-2-306.E.3.a]

b. The permitted facility was being properly operated at the time of the emergency;

[A.A.C. R18-2-306.E.3.b]

c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

[A.A.C. R18-2-306.E.3.c]

d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

[A.A.C. R18-2-306.E.3.d]

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

[A.A.C. R18-2-306.E.4]

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[A.A.C. R18-2-306.E.5]

D. Compliance Schedule

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

[ARS § 49-426.I.3]

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

1. Applicability

A.A.C. R18-2-310 establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

a. Promulgated pursuant to Sections 111 or 112 of the Act;

[A.A.C. R18-2-310.A.1]

b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;

[A.A.C. R18-2-310.A.2]

c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;

[A.A.C. R18-2-310.A.3]

d. Contained in A.A.C. R18-2-715.F; or

[A.A.C. R18-2-310.A.4]

e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

[A.A.C. R18-2-310.A.5]

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission

limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.B]

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;

[A.A.C. R18-2-310.B.1]

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.B.2]

c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

[A.A.C. R18-2-310.B.3]

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.B.4]

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.B.5]

f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

[A.A.C. R18-2-310.B.6]

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.B.7]

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

[A.A.C. R18-2-310.B.8]

i. All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.B.9]

j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

[A.A.C. R18-2-310.B.10]

3. Affirmative Defense for Startup and Shutdown

a. Except as provided in Condition XI.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

[A.A.C. R18-2-310.C.1]

(1) The excess emissions could not have been prevented through careful and prudent planning and design;

[A.A.C. R18-2-310.C.1.a]

(2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

[A.A.C. R18-2-310.C.1.b]

(3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

[A.A.C. R18-2-310.C.1.c]

(4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

[A.A.C. R18-2-310.C.1.d]

(5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.C.1.e]

(6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

[A.A.C. R18-2-310.C.1.f]

(7) All emissions monitoring systems were kept in operation if at all practicable; and

[A.A.C. R18-2-310.C.1.g]

(8) Contemporaneous records documented the Permittee’s actions in response to the excess emissions.

[A.A.C. R18-2-310.C.1.h]

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XI.E.2 above.

[A.A.C. R18-2-310.C.2]

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XI.E.2 above.

[A.A.C. R18-2-310.D]

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Conditions XI.E.2 or XI.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by this Condition XI.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

[A.A.C. R18-2-310.E]

XII. RECORDKEEPING REQUIREMENTS

A. The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

[A.A.C. R18-2-306.A.4.a]

1. The date, place as defined in the permit, and time of sampling or measurements;
[A.A.C. R18-2-306.A.4.a.i]

2. The date(s) any analyses were performed;
[A.A.C. R18-2-306.A.4.a.ii]

3. The name of the company or entity that performed the analyses;
[A.A.C. R18-2-306.A.4.a.iii]

4. A description of the analytical techniques or methods used;
[A.A.C. R18-2-306.A.4.a.iv]

5. The results of analyses; and
[A.A.C. R18-2-306.A.4.a.v]

6. The operating conditions as existing at the time of sampling or measurement.
[A.A.C. R18-2-306.A.4.a.vi]

B. The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[A.A.C. R18-2-306.A.4.b]

XIII. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

A. Compliance certifications in accordance with Section VII above.

[A.A.C. R18-2-306.A.5.a]

B. Excess emission; permit deviation, and emergency reports in accordance with Section XI above.

[A.A.C. R18-2-306.A.5.b]

C. Other reports required by any condition of Attachment "B."

XIV. DUTY TO PROVIDE INFORMATION

A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

[A.A.C. R18-2-304.G and -306.A.8.e]

B. If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

[A.A.C. R18-2-304.H]

XV. PERMIT AMENDMENT OR REVISION

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Section XVI below, as follows:

A. Administrative Permit Amendment (A.A.C. R18-2-318);

[A.A.C. R18-2-318]

B. Minor Permit Revision (A.A.C. R18-2-319); and

[A.A.C. R18-2-319]

C. Significant Permit Revision (A.A.C. R18-2-320)

[A.A.C. R18-2-320]

D. The applicability and requirements for such action are defined in the above referenced regulations.

XVI. FACILITY CHANGE WITHOUT A PERMIT REVISION

A. The Permittee may make changes that contravene an express permit term without a permit revision if all of the following apply:

[A.A.C. R18-2-317]

1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24);

[A.A.C. R18-2-317.A.1]

2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;

[A.A.C. R18-2-317.A.2]

3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;

[A.A.C. R18-2-317.A.3]

4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A;

[A.A.C. R18-2-317.A.4]

5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and

[A.A.C. R18-2-317.A.5]

6. The changes do not constitute a minor NSR modification.

[A.A.C. R18-2-317.A.6]

B. The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVI.A, C and D.

[A.A.C. R18-2-317.B]

C. For each change under Conditions XVI.A and XVI.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change~~,~~ as possible or, if advance notification is not practicable, as soon after the change as possible.

[A.A.C. R18-2-317.D]

D. Each notification shall include:

1. When the proposed change will occur;

[A.A.C. R18-2-317.E.1]

2. A description of the change;

[A.A.C. R18-2-317.E.2]

3. Any change in emissions of regulated air pollutants; and

[A.A.C. R18-2-317.E.3]

4. Any permit term or condition that is no longer applicable as a result of the change.

[A.A.C. R18-2-317.E.7]

E. The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under Section XVI.

[A.A.C. R18-2-317.F]

F. Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section XVI.

[A.A.C. R18-2-317.G]

G. Notwithstanding any other part of Section XVI, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under Section XVI over the term of the permit, do not satisfy Condition XVI.A above.

[A.A.C. R18-2-317.H]

XVII. TESTING REQUIREMENTS

A. Except as provided in Condition XVII.F below, the Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

[A.A.C. R18-2-312.A]

B. Operational Conditions during Performance Testing

Performance tests shall be conducted under such conditions as the Director shall specify to the plant operator based on representative performance of the source. The Permittee shall make available to the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard.

[A.A.C. R18-2-312.C]

C. Performance Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

[A.A.C. R18-2-312.B]

D. Test Plan

At least 14 working days prior to performing a test, the Permittee shall submit a test plan to the Director, which must include the following, in addition to all other applicable requirements, as identified in the Arizona Testing Manual:

[A.A.C. R18-2-312.B]

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect test results.

E. Stack Sampling Facilities

The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

[A.A.C. R18-2-312.E]

1. Sampling ports adequate for test methods applicable to the facility;

2. Safe sampling platform(s);

3. Safe access to sampling platform(s); and

4. Utilities for sampling and testing equipment.

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-312.F]

G. Report of Final Test Results

A written report of the results of performance tests conducted pursuant to 40 CFR 63, shall be submitted to the Director within 60 days after the test is performed. A written report of the results of all other performance tests shall be submitted within 4 weeks after the completion of the testing as specified in the Arizona Testing Manual. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A

[A.A.C. R18-2-312.A and B]

H. Extension of Performance Test Deadline

For performance testing required under Condition XVII.A above, the Permittee may request an extension to a performance test deadline due to a force majeure event as follows:

[A.A.C. R18-2-312.J]

1. If a force majeure event is about to occur, occurs, or has occurred for which the Permittee intends to assert a claim of force majeure, the Permittee shall notify the Director in writing as soon as practicable following the date the Permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline. The notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall be given as soon as practicable.

[A.A.C. R18-2-312.J.1]

2. The Permittee shall provide to the Director a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the Permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure event occurs.

[A.A.C. R18-2-312.J.2]

3. The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Director. The Director shall notify the Permittee in writing of approval or disapproval of the request for an extension as soon as practicable.

[A.A.C. R18-2-312.J.3]

4. Until an extension of the performance test deadline has been approved by the Director under Conditions XVII.H.1, 2, and 3 above, the Permittee remains subject to the requirements of this Section XVII.

[A.A.C. R18-2-312.J.4]

5. For purposes of this Section XVII, a "force majeure event" means an event that will be or has been caused by circumstances beyond the control of the Permittee, its contractors, or any entity controlled by the Permittee that prevents it from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the Permittee's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the Permittee.

[A.A.C. R18-2-312.J.5]

XVIII. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

[A.A.C. R18-2-306.A.8.d]

XIX. SEVERABILITY CLAUSE

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

[A.A.C. R18-2-306.A.7]

XX. PERMIT SHIELD

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield." The permit shield shall not apply to minor revisions pursuant to Condition XV.B of this Attachment and any facility changes without a permit revision pursuant to Section XVI of this Attachment.

[A.A.C. R18-2-317.F, - 320, and -325]

XXI. PROTECTION OF STRATOSPHERIC OZONE

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

[40 CFR Part 82]

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standard or a National Emission Standard for Hazardous Air Pollutants, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

[40 CFR Part 60 Subpart A and Part 63 Subpart A]

ATTACHMENT "B": SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

A. Operating Limitations

The Permittee shall operate and maintain all air pollution control equipment and fuel combustion equipment identified in Attachment "E" in accordance with manufacturer-supplied operations and maintenance instructions, except as specifically permitted by other conditions in Attachments "B," "C," and "D." If manufacturer-supplied operations and maintenance instructions are: (1) not available; (2) not applicable; or (3) at the Permittee's election (with approval by the Director), the Permittee shall prepare an Operation and Maintenance Plan, which provides adequate information to properly operate and maintain the equipment. The Permittee shall operate and maintain the equipment in accordance with any such Operation and Maintenance Plan prepared by the Permittee.

[A.A.C. R18-2-306.A.2]

B. Monitoring, Recordkeeping, and Reporting Requirements

1. The Permittee shall maintain, on-site, records of the manufacturer-supplied operations and maintenance instructions and/or the Operation and Maintenance Plan required by Condition I.A above.

[A.A.C. R18-2-306.A.3.c]

2. The Permittee shall submit reports of all monitoring activities required in Attachments "B," "C," and "D" at the time the compliance certifications required by Section VII of Attachment "A" are submitted. The Permittee may submit the report of monitoring activities via the "Annual/Semiannual Deviation and Monitoring Report" form located on the Arizona Department of Environmental Quality Website.

[A.A.C. R18-2-306.A.5.a]

3. Deviations from the following permit conditions shall be promptly reported in accordance with Condition XI.B.2 of Attachment "A":

[A.A.C. R18-2-306.A.5.b.ii]

a. Conditions I.A.3.b through I.A.3.d of Attachment "C"

b. Conditions I.B.4.a and I.B.4.b of Attachment "C"

c. Condition I.D.3 of Attachment "C"

d. Condition II.A.3 of Attachment "C"

e. Condition II.B.4.a and I.B.4.b of Attachment "C"

f. Condition II.D.1.c(2) of Attachment "C"

g. Conditions III.A.3.b of Attachment "C"

h. Condition III.B.4 of Attachment "C"

i. Condition IV.B.4.a of Attachment "C"

j. Condition IV.D.4 of Attachment "C"

k. Condition V.D.2 of Attachment "C"

l. Condition VI.D.4 of Attachment "C"

m. Condition X.D.3 of Attachment "C"

C. Periodic Opacity Monitoring Requirements

1. The Permittee shall have on site or on call a person certified in EPA Reference Method 9.

[A.A.C. R18-2-306.A.3.c]

2. The Permittee shall use the following methodology to periodically monitor opacity in accordance with the observation plan dated May 2, 2014 or any subsequently approved observation plan. The periodic opacity monitoring shall be conducted as required and according to the frequency specified in later conditions of this permit:

[A.A.C. R18-2-306.A.3.c]

a. The Certified EPA Reference Method 9 observer shall conduct, surveys of visible emissions from all the emission units identified in the following sections, when in operation, unless specified otherwise. An emission unit shall include, stack, fugitive, and non-point/non-fugitive emission sources.

b. If the observer, during the visual survey, does not see visible emissions that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, and the results of the observation.

c. If the observer sees visible emissions that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall, if practicable, take a six-minute EPA Reference Method 9 observation of the visible emissions.

d. If the six-minute opacity of the visible emissions is less than or equal to the opacity standard, the observer shall make a record of the following:

(1) Location, date, and time of the test; and

(2) The results of the EPA Reference Method 9 observation.

e. If the six-minute opacity of the visible emissions exceeds the opacity standard, then the Permittee shall do the following:

(1) Adjust or repair the controls or equipment to reduce opacity to or below the opacity standard; and

(2) Report the event as an excess emission for opacity.

3. If emissions from the emission unit are controlled by a pollution control device, periodic opacity monitoring shall be conducted at the exhaust location. If emissions are released inside a building, periodic opacity monitoring shall be conducted on the overall building or at the location where emissions exit the building.

[A.A.C. R18-2-306.A.3.c]

4. Changes to the observation plan shall not be made without the prior approval of the Director.

[A.A.C. R18-2-306.A.2]

II. SMALL INDUSTRIAL EXTERNAL COMBUSTION EQUIPMENT

This Section applies to the small industrial external combustion equipment associated with Operations 009, 010, 014, and 024.

A. Equipment Subject to the Standards of Performance for Fossil-Fuel Fired Industrial Equipment Under A.A.C. R18-2-724.

1. Applicability

The equipment subject to the requirements of this Condition II.A are identified in the last column of the Equipment List in Attachment "E."

2. Fuel Limitation

a. The Permittee shall fire only propane in the Propane Hot Water Heaters 1 through 3 (Process #s 010-270, 010-271 and 010-310), Light Vehicle Propane Pressure Washer (Process #024-420), and Propane Small Space Heaters/Boilers (Process #024-444).

[A.A.C. R18-2-306.A.2]

b. The Permittee shall fire only natural gas in the Locomotive Area Machine Shop Natural Gas Parts Washer (Process #024-437) and Natural Gas Small Space Heaters/Boilers (Process #024-443).

[A.A.C. R18-2-306.A.2]

c. The Permittee shall only fire diesel fuel in the Diesel Hot Water Pressure Cleaners 1 and 2 (Process #s 009-274 and 009-347) and the Diesel Pressure Washer (Modoc Test Facility) (Process #009-427).

[A.A.C. R18-2-306.A.2]

d. The use of high sulfur oil in the fossil-fuel fired industrial equipment is prohibited.

[A.A.C. R18-2-724.G]

3. Particulate Matter and Opacity

a. Emission Limitations and Standards

(1) The Permittee shall not cause, allow, or permit the emission of particulate matter, caused by combustion of fuel, from any fuel-

burning operation in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-724.C]

(a) For equipment having a heat input rate of 4,200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:

$E = 1.02*Q^{0.769}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour; and

Q = the heat input in MMBtu per hour.

(b) For equipment having a heat input rate greater than 4,200 million Btu per hour, the maximum allowable emissions shall be determined by the following equation:

$E = 17.0*Q^{0.432}$

Where "E" and "Q" have the same meaning as in Condition II.A.3.a(1)(a).

(2) For the purposes of Condition II.A.3.a(1) above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-724.B]

(3) The Permittee shall not cause, allow, or permit the opacity of any plume or effluent from any fuel burning equipment to exceed 15 percent.

[A.A.C. R18-2-724.J]

b. Monitoring, Recordkeeping and Reporting Requirements

(1) The Permittee shall maintain records of the lower heating value of the fuel being fired. This may be accomplished by maintaining on record a copy of that part of the contract with the vendor that specifies the lower heating value of the fuel. These records shall be made available to the Director upon request.

[A.A.C. R18-2-306.A.3.c]

(2) The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a quarterly basis for the diesel-fired equipment.

[A.A.C. R18-2-306.A.3.c]

(3) The Permittee shall report all six-minute periods in which the opacity of any plume or effluent from the fuel burning equipment exceeds 15 percent.

[A.A.C. R18-2-724.J]

4. Sulfur Dioxide

a. Emission Limitation

In the diesel-fired equipment, the Permittee shall limit the emission of sulfur dioxide to no more than 1.0 pound per million Btu heat input.

[A.A.C. R18-2-724.E]

5. Permit Shield

Compliance with the requirements of Condition II.A shall be deemed compliance with A.A.C. R18-2-724.B, -724.C, -724.E, -724.G, and -724.J.

[A.A.C. R18-2-325]

B. Equipment Subject to NSPS Requirements for Small Industrial Steam Generating Units Under 40 CFR 60 Subpart Dc

1. Applicability

The equipment subject to the requirements of this Condition II.B are identified in the last column of the Equipment List in Attachment "E."

2. Fuel Limitations

The Permittee shall burn only natural gas in the following equipment:

[A.A.C. R18-2-306.A.2]

a. Small Industrial Natural Gas Boiler 1 (Process #009-123);

b. Small Industrial Natural Gas Boiler 2 (Process #009-184);

c. Small Industrial Natural Gas Boiler 3 (Process #009-185);

d. Small Industrial Natural Gas Boiler 4 (Process #009-222);

e. Small Industrial Natural Gas Boiler 5 (Process #009-223); and

f. Natural Gas Startup Boiler (Process #014-242).

3. Voluntary Fuel Quantity Limitations

a. *The Permittee shall not combust more than 458,148 MMBtu per year of natural gas total in the following equipment*:

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

(1) *Small Industrial Natural Gas Boiler 1 (Process #009-123);*

(2) *Small Industrial Natural Gas Boiler 2 (Process #009-184);*

(3) *Small Industrial Natural Gas Boiler 3 (Process #009-185);*

(4) *Small Industrial Natural Gas Boiler 4 (Process #009-222); and*

(5) *Small Industrial Natural Gas Boiler 5 (Process #009-223).*

b. *The Permittee shall not combust more than 61,320 MMBtu per year of natural gas in the Natural Gas Startup Boiler (Process #014-242).*

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

4. Monitoring, Recordkeeping and Reporting Requirements

a. The Permittee shall maintain records of natural gas combusted in the Small Industrial Natural Gas Boilers 1, 2, 3, 4, and 5 (Process #s 009-123, 009-184, 009-185, 009-222, and 009-223) in units of MMBtu during each calendar month. At the end of the month, the Permittee shall compute and record the twelve-month rolling total of fuel consumed (in units of MMBtu).

[A.A.C. R18-2-306.A.3.c and 40 CFR 60.48c(g)(2)]

b. The Permittee shall maintain records of natural gas combusted in the Natural Gas Startup Boiler (Process #014-242) in units of MMBtu during each calendar month. At the end of the month, the Permittee shall compute and record the twelve-month rolling total of fuel consumed (in units of MMBtu).

[A.A.C. R18-2-306.A.3.c and 40 CFR 60.48c(g)(2)]

c. The Permittee shall maintain the records required by Conditions II.B.4.a and II.B.4.b for a period of two years following the date of such record.

[A.A.C. R18-2-306.A.3.c and 40 CFR 60.48c(i)]

5. Permit Shield

Compliance with the requirements of Condition II.B shall be deemed compliance with 40 CFR 60.48c(i) and 60.48c(g)(2).

[A.A.C. R18-2-325]

III. REQUIREMENTS FOR ENGINES

This Section applies to the engines associated with Operations 015, 021 and 025.

A. Engines Subject to Standards of Performance for Existing Stationary Rotating Machinery Under A.A.C. R18-2-719

1. Applicability

The engines subject to the requirements of this Condition III.A are identified in the last column of the Equipment List in Attachment "E."

2. Fuel Limitations

a. The Permittee shall fire only diesel fuel in the diesel engines.
[A.A.C. R18-2-306.A.2]

b. The use of high sulfur oil in the existing stationary rotating machinery is prohibited.
[A.A.C. R18-2-719.H]

3. Particulate Matter and Opacity

a. Emission Limitations and Standards

(1) The Permittee shall not cause, allow, or permit the emission of particulate matter, caused by combustion of fuel, from any stationary rotating machinery in excess of the amounts calculated by one of the following equations:
[A.A.C. R18-2-719.C]

(a) For equipment having a heat input rate of 4,200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:

$E = 1.02\ Q^{0.769}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the heat input in million Btu per hour

(b) For equipment having a heat input rate greater than 4,200 million Btu per hour, the maximum allowable emissions shall be determined by the following equation:

$E = 17.0*Q^{0.432}$

Where "E" and "Q" have the same meaning as in Condition III.A.3.a(1)(a) above.

(2) For the purposes of the calculations required in Condition III.A.3.a(1) above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units at a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.
[A.A.C. R18-2-719.B]

(3) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C. R18-2-719.E]

b. Monitoring, Recordkeeping and Reporting Requirements

(1) The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a quarterly basis for all emission units, when in operation, subject to Condition III.A.

[A.A.C. R18-2-306.A.3.c]

(2) The Permittee shall maintain daily records of the lower heating value of the fuel being fired. This may be accomplished by maintaining on record a copy of that part of the contract with the vendor that specifies the lower heating value of the fuel.

[A.A.C. R18-2-719.I]

4. Sulfur Dioxide

a. Emission Limitations and Standards

For the diesel fired emergency engines, the Permittee shall limit the emission of sulfur dioxide to no more than 1.0 pound per million Btu heat input.

[A.A.C. R18-2-719.F]

b. The Permittee shall record daily the sulfur content of the fuel being fired. This may be accomplished by maintaining on record a copy of that part of the contract with the vendor that specifies the sulfur content of the fuel.

[A.A.C. R18-2-719.I]

c. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired exceeds 0.8%.

[A.A.C. R18-2-719.J]

5. Permit Shield

Compliance with the requirements of Condition III.A shall be deemed compliance with A.A.C. R18-2-719.B, 719.C, 719.E, 719.F, 719.H, 719.I, and 719.J.

[A.A.C. R18-2-325]

B. Existing Emergency Engines Subject to the NESHAP Requirements for Stationary RICE Under 40 CFR 63 Subpart ZZZZ

1. Applicability

The engines subject to the requirements of Condition III.B are identified in the last column of the Equipment List in Attachment "E."

2. General Requirements

a. The Permittee shall operate and maintain at all times the engine including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for

minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63 Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 CFR 63.6605(b)]

b. The Permittee shall minimize the engine time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
[40 CFR 63.6625(h)]

c. The Permittee shall operate and maintain the engine and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
[40 CFR 63.6625(e)]

3. Fuel Requirements

For existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates for the purpose specified in Condition III.B.5.d(4), the Permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. The requirements in 40 CFR 80.510(b) include:

a. Sulfur content $\leq$ 15 ppm; and

b. Cetane index $\geq$ 40 or aromatic content $\leq$ 35% by volume.
[40 CFR 63.6604(b)]

4. Operation Requirements

a. For the CI emergency engines, the Permittee shall comply with the following operation and maintenance requirements:
[40 CFR 63.6603(a), 63.6625(i) and 40 CFR 63, Subpart ZZZZ, Table 2d]

(1) The Permittee shall change the oil and filter every 500 hours operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program shall be completed. The oil analysis must be performed at the same frequency specified for changing the oil. The Permittee shall at a minimum analyze the following three parameters: Total Base Number, viscosity and water content. The condemning limits for these parameters are as follows:

(a) Total Base Number: less than 30 percent of the Total Base Number of the oil when new;

(b) Viscosity: changed more than 20 percent from the viscosity of oil when new; and

(c) Water Content: greater than 0.5 percent by volume.

If all of the condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the condemning limits are exceeded, the Permittee shall change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later. The analysis program shall be part of the maintenance plan for the engine.

(2) The Permittee shall inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(3) The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

b. For the SI emergency engines, the Permittee shall comply with the following operation and maintenance requirements:
[40 CFR 63.6603(a), 63.6625(j) and 40 CFR 63, Subpart ZZZZ, Table 2d]

(1) The Permittee shall change the oil and filter every 500 hours operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program shall be completed. The oil analysis must be performed at the same frequency specified for changing the oil. The Permittee shall at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

(a) Total Acid Number: increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;

(b) Viscosity: changed by more than 20 percent from the viscosity of oil when new; and

(c) Water Content: greater than 0.5 percent by volume.

If all of the condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the condemning limits are exceeded, the Permittee shall change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later. The analysis program shall be part of the maintenance plan for the engine.

(2) The Permittee shall inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

(3) The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

c. If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Conditions III.B.4.a and III.B.4.b, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The Permittee shall report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[40 CFR 63, Subpart ZZZZ, Table 2d]

d. The Permittee shall operate the emergency engine according to the requirements in Conditions III.B.4.d(1) through III.B.4.d(4). In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Conditions III.B.4.d(1) through III.B.4.d(4) is prohibited. If the Permittee does not operate the engine according to the requirements in Conditions III.B.4.d(1) through III.B.4.d(4), the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines:

(1) There is no time limit on the use of emergency engine in emergency situations.

[40 CFR 60.6640(f)(1)]

(2) The Permittee may operate the emergency engine for the purpose of maintenance checks and readiness testing for a maximum of 100 hours per calendar year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission operator, or the insurance company associated with the engine. The Permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition III.B.4.d(3) counts as part of the 100 hours per calendar year allowed by this condition.

[40 CFR 63.6640(f)(2)(i)]

(3) The Permittee may operate an emergency engine for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Condition III.B.4.d(2). Except as provided in Condition III.B.4.d(4) below, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)(4)]

(4) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[40 CFR 63.6640(f)(4)(ii)]

(a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(d) The power is provided only to the facility itself or to support the local transmission and distribution system.

(e) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

e. *The Permittee shall install a non-resettable hour meter on the engine if one is not already installed*.

[40 CFR 63.6625(f), R18-2-331.A.3.c]
[Material Permit Conditions are indicated by underline and italics]

5. Compliance Requirements

a. The Permittee shall be in compliance with all applicable requirements of 40 CFR 63, Subpart ZZZZ at all times.

[40 CFR 63.6605(a)]

b. The Permittee shall demonstrate continuous compliance by operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions, or developing and following a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6640(a), Table 6, Entry 9]

6. Recordkeeping Requirements

a. If the engine does not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Records shall include how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in Condition III.B.4.d(4), the Permittee shall keep records of the date, start time, and end time of engine operation for this purpose.

[40 CFR 63.6655(f)]

b. For an emergency engine that operates for the purpose specified in Condition III.B.4.d(4), the Permittee shall submit an annual report according to the requirements in 40 CFR 63.6650(h)(1) through 63.6650(h)(3).

[40 CFR 63.6650(a) and 63.6650(h) including Table 7, Entry 4]

c. If the Permittee elects to utilize the oil analysis program option in Conditions III.B.4.a(1) and III.B.4.b(1) above, it shall keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine.

[40 CFR 63.6625(i) and (j)]

d. The Permittee shall keep records of the maintenance conducted on the engine in order to demonstrate that the engine and after-treatment control device (if any) was operated and maintained according to any developed maintenance plan.

[40 CFR 63.6655(e)]

e. The Permittee shall keep each record in hard copy or electronic form for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records shall be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).

[40 CFR 63.6660(a)-(c)]

f. The Permittee shall report all deviations as defined in 40 CFR 63, Subpart ZZZZ in the semiannual report of monitoring activities required by Condition I.B.2.

[40 CFR 63.6650(f)]

7. Permit Shield

Compliance with the requirements of Condition III.B shall be deemed compliance with 63.6603(a), 63.6604(b), 63.6605(a), 63.6605(b), 63.6625(e), 63.6625(f), 63.6625(h), 63.6625(i), 63.6625(j), 63.6640(a), 63.6640(f), 63.6650(a), 63.6650(f), 63.6650(h), 63.6655(e), 63.6655(f), and 63.6660(a) to (c).

[A.A.C. R18-2-325]

C. New Non-Emergency Engines Subject to NSPS Requirements for CI ICE Under 40 CFR 60 Subpart IIII

1. Applicability

The engines subject to the requirements of this Condition III.C are identified in the last column of the Equipment List in Attachment "E."

2. Fuel Requirements

For stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, the Permittee shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b) for non-road diesel fuel:

a. Sulfur content: 15 ppm maximum; and

b. A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b)]

3. Emission Limitations and Standards

a. For 2007-2011 model year engines rated greater than or equal to 75 kW but less than 130 kW with a displacement of less than 10 liters per cylinder, the Permittee shall comply with the following emission standards:

[40 CFR 60.4201(a) and 60.4204(b), and 40 CFR 89.112]

(1) Particulate Matter (PM)

The Permittee shall limit the emissions of PM from the engine to 0.30 g/kW-hr (or as otherwise specified in 40 CFR 89.112).

(2) Carbon Monoxide (CO)

The Permittee shall limit the emissions of CO from the engine to 5.0 g/kW-hr.

(3) Nitrogen Oxides (NOx) and Non-Methane Hydrocarbons (NMHC)

The Permittee shall limit the combined emissions of NOx and NMHC from the engines to 4.0 g/kW-hr (or as otherwise specified in 40 CFR 89.112).

b. The Permittee shall limit exhaust opacity from the engine (excluding single cylinder and constant speed engines) to not exceed:

[40 CFR 60.4201(a), 60.4204(b), and 40 CFR 89.113]

(1) 20 percent during the acceleration mode;

(2) 15 percent during the lugging mode; and

(3) 50 percent during peaks in either the acceleration or lugging mode.

4. Operating Requirements

a. The Permittee shall operate and maintain the engines that achieve the emission standards as required in Condition III.C.3 over the entire life of the engine.

[40 CFR 60.4206]

b. If the engine is equipped with a diesel particulate filter to comply with the emission standards in Condition III.C.3, the diesel particulate filter shall be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached.

[40 CFR 60.4209(b)]

c. The Permittee shall operate and maintain the engine and any control device according to the manufacturer's written instructions, except as permitted by Condition III.C.5.b.

[40 CFR 60.4211(a)(1)]

d. The Permittee shall only change those emission related settings that are permitted by the manufacturer, except as permitted by Condition III.C.5.b.

[40 CFR 60.4211(a)(2)]

e. The Permittee shall meet the applicable requirements of 40 CFR Part 89, 94 and/or 1068, as they apply to the Permittee.

[40 CFR 60.4211(a)(3)]

5. Compliance Requirements

a. The Permittee shall comply by purchasing an engine certified to the emission standards in Condition III.C.3. The engine must be installed and configured according to the manufacturer's emission related specifications, except as permitted by Condition III.C.5.b.

[40 CFR 60.4211(c)]

b. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year

after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer

[40 CFR 60.4211(g)(2)]

6. Recordkeeping Requirements

If the engine is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has provided notification that the high backpressure limit of the engine is approached.

[40 CFR 60.4214(c)]

7. Permit Shield

Compliance with the requirements of Condition III.C shall be deemed compliance with 40 CFR 60.4201(a), 60.4204(b), 60.4206, 60.4207(b), 60.4209(b), 60.4211(a), 60.4211(c), 60.4211(g)(2), 60.4214(c).

[A.A.C. R18-2-325]

D. New Emergency Engines Subject to NSPS Requirements for CI ICE Under 40 CFR 60 Subpart IIII

1. Applicability

The engines subject to the requirements of this Condition III.D are identified in the last column of the Equipment List in Attachment "E."

2. Fuel Requirements

For stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, the Permittee shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b) for non-road diesel fuel:

a. Sulfur content: 15 ppm maximum; and

b. A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b)]

3. Emission Limitations and Standards

a. Non-Fire Pump Engines

(1) For engines with a displacement of less than 10 liters per cylinder, the Permittee shall comply with the emission standards listed in the following table (or as otherwise specified in 40 CFR 89.112):

[40 CFR 60.4202(a)(2), 60.4205(b), 40 CFR 89.112(a), Table 1]

Engine Rated Power	Model Year	Tier Rating	PM	CO	NOx + NMHC
			g/kW-hr		
37 ≤ kW < 75 kW	2008 and later	Tier 3	0.40	5.0	4.7
130 ≤ kW < 225 kW	2007 and later	Tier 3	0.20	3.5	4.0

Engine Rated Power	Model Year	Tier Rating	PM	CO	NOx + NMHC
			g/kW-hr		
225 ≤ kW < 450 kW	2007 and later	Tier 3	0.20	3.5	4.0
560 < kW ≤ 2,237 kW	2007 and later	Tier 2	0.20	3.5	6.4

(2) The Permittee shall limit exhaust opacity from the emergency engines (excluding single cylinder and constant speed engines) to not exceed:

[40 CFR 60.4202(a)(2), 4205(b) and 89.113]

(a) 20 percent during the acceleration mode;

(b) 15 percent during the lugging mode; and

(c) 50 percent during peaks in either the acceleration or lugging mode.

b. Fire Pump Engines

For engines with a rated power greater than or equal to 225 kW but less than 450 kW, a displacement less than 30 liters per cylinder and a model year greater than or equal to 2009, the Permittee shall comply with the following emission standards:

[40 CFR 60.4205(c), Subpart IIII Table 4]

(1) Particulate Matter (PM)

The Permittee shall limit the emissions of PM from the fire pump engine to 0.20 g/kW-hr.

(2) Carbon Monoxide (CO)

The Permittee shall limit the emissions of CO from the fire pump engine to 3.50 g/kW-hr.

(3) Nitrogen Oxides (NOx) and Non-Methane Hydrocarbons (NMHC)

The Permittee shall limit the combined emissions of NOx and NMHC from the fire pump engine to 4.0 g/kW-hr.

4. Operating Limitations

a. *The Permittee shall not operate the Emergency Diesel Engine (Process #015-262) for more than 300 hours in a rolling twelve- month period.*

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

b. The Permittee shall keep monthly records of the hours of operation of the Emergency Diesel Engine (Process #015-262). At the end of the month,

the Permittee shall compute and record the twelve-month rolling total of hours operated.

[A.A.C. R18-2-306.A.3.c]

5. Operating Requirements

a. The Permittee shall operate and maintain the engines that achieve the emission standards as required in Condition III.D.3 over the entire life of the engine.

[40 CFR 60.4206]

b. The Permittee shall operate and maintain the engine and control device according to the manufacturer's emission-related written instructions, except as permitted under Condition III.D.6.b.

[40 CFR 60.4211(a)(1)]

c. The Permittee shall only change those engine-related settings that are permitted by the manufacturer except as permitted under Condition III.D.6.b.

[40 CFR 60.4211(a)(2)]

d. The Permittee shall meet the applicable requirements of 40 CFR Part 89, 94, and/or 1068, as they apply to the Permittee.

[40 CFR 60.4211(a)(3)]

e. *For an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, the Permittee shall install a non-resettable hour meter prior to startup of the engine*.

[A.A.C. R18-2-331.A.3.c and 40 CFR 60.4209(a)]
[Material permit conditions are indicated by underline and italics]

f. The Permittee shall operate the emergency engine according to the requirements in Condition III.D.5.f(1) through Condition III.D.5.f(4). In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Condition III.D.5.f(1) through Condition III.D.5.f(4), is prohibited. If the Permittee does not operate the engine according to the requirements in Condition III.D.5.f(1) through Condition III.D.5.f(4), the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

(1) Except for the Emergency Diesel Engine (Process #015-262) as specified in Condition III.D.4.a, there is no time limit on the use of the emergency engine in emergency situations.

[40 CFR 60.4211(f)(1)]

(2) The Permittee may operate the engine for the purpose of maintenance checks and readiness testing for a maximum of 100 hours per calendar year, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission operator, or the insurance company associated with the engine. The Permittee may petition

the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition III.D.5.f(3) counts as part of the 100 hours per calendar year allowed by this condition.

[40 CFR 60.4211(f)(2)]

(3) The Permittee may operate an emergency engine up to 50 hours per year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Condition III.D.5.f(2). Except as provided in Condition III.D.5.f(4), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3)]

(4) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[40 CFR 60.4211(f)(3)(i)]

(a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(d) The power is provided only to the facility itself or to support the local transmission and distribution system.

(e) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

6. Compliance Requirements

a. The Permittee shall comply by purchasing an engine certified to the emission standards in Condition III.D.3, as applicable. The engine shall be installed and configured according to the manufacturer's specifications, except as permitted in Condition III.D.6.b.

[40 CFR 60.4211(c)]

b. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes the emission-related setting in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

[40 CFR 60.4211(g)]

(1) Engines Less Than 100 HP

The Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) Engines Greater Than or Equal to 100 HP and Less Than or Equal to 500 HP

The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after emission-related settings are changed in a way that is not permitted by the manufacturer.

(3) Engines Greater Than 500 HP

The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after emission-related settings are changed in a way that is not permitted by the

manufacturer. Subsequent performance tests shall be conducted every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

7. Recordkeeping Requirements

a. Starting with the model years in Table 5 of 40 CFR 60 Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

[40 CFR 60.4214(b)]

b. If any engine is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached.

[40 CFR 60.4214(c)]

c. For an emergency stationary CI ICE with a maximum engine power more than 100 hp that operates for the purposes specified in Condition III.D.5.f(4), the Permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through 60.4214(d)(3).

[40 CFR 60.4214(d)]

8. Permit Shield

Compliance with the requirements of Condition III.D shall be deemed compliance with 40 CFR 60.4202(a)(2), 60.4205(b), 60.4205(c), 60.4206, 60.4207(b), 60.4209(a), 60.4211(a), 60.4211(c). 60.4211(f), 60.4211(g), 60.4214(b), 60.4214(c), and 60.4214(d).

[A.A.C. R18-2-325]

E. New Emergency Engines Subject to NSPS Requirements for SI ICE Under 40 CFR 60 Subpart JJJJ

1. Applicability

The engines subject to the requirements of Condition III.E are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Engines with a maximum power less than or equal to 25 hp, a displacement ≥ 225 cc (Class II), and manufactured on July 1, 2011 or later

[40 CFR 60.4231(a)(4) and 4233(a), 40 CFR 1054.105]

(1) Carbon Monoxide (CO)

The Permittee shall limit the emissions of CO from the RICE to 610 g/kW-hr.

(2) Nitrogen Oxides (NOx) and Hydrocarbons (HC)

The Permittee shall limit the combined emissions of NOx and HC from the RICE to 8.0 g/kW-hr or as otherwise specified in 40 CFR 1054.105.

b. Engines with a maximum power greater than 25 hp but less than 130 hp that are rich burn engines, use liquefied petroleum gas (LPG), and are manufactured on January 1, 2009 or later:

[40 CFR 60.4231(c) and 4233(c), 40 CFR 90.103(a), Table 1, Phase 1, Class II]

(1) Carbon Monoxide (CO)

The Permittee shall limit the emissions of CO from the RICE to 519 g/kW-hr.

(2) Nitrogen Oxides (NOx) and Hydrocarbons (HC)

The Permittee shall limit the combined emissions of NOx and HC from the RICE to 13.4 g/kW-hr.

3. Operating Requirements

a. The Permittee shall operate and maintain stationary SI ICE that achieve the emission standards as required in Condition III.E.2 over the entire life of the engine.

[40 CFR 60.4234]

b. *For the engines less than 130 hp built on or after July 1, 2008 that do not meet the standards applicable to non-emergency engines, the Permittee shall install non-resettable hour meters upon startup*.

[A.A.C. R18-2-331.A.3.c and 40 CFR 60.4237(c)]
[Material permit conditions are indicated by underline and italics]

c. The Permittee shall operate the emergency engine according to the requirements in Condition III.E.3.c(1) through Condition III.E.3.c(4). In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Condition III.E.3.c(1) through Condition III.E.3.c(4), is prohibited. If the Permittee does not operate the engine according to the requirements in Condition III.E.3.c(1) through Condition III.E.3.c(4), the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary SI ICE in emergency situations.

[40 CFR 60.4243(d)(1)]

(2) The Permittee may operate the SI ICE for the purpose of maintenance checks and readiness testing for a maximum of 100 hours per calendar year, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, the regional transmission operator, or the insurance company associated with the engine. The Permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition III.E.3.c(3) counts as part of the 100 hours per calendar year allowed by this condition.

[40 CFR 60.4243(d)(2)]

(3) The Permittee may operate the emergency SI ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Condition III.E.3.c(2). Except as provided in Condition III.E.3.c(4) below, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4243(d)(3)]

(4) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[40 CFR 60.4243(d)(3)(i)]

(a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(d) The power is provided only to the facility itself or to support the local transmission and distribution system.

(e) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or

guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

4. Compliance Requirements

The Permittee operating a SI RICE manufactured after July 1, 2008 and subject to the emission standards specified in Condition III.E.2, shall demonstrate compliance by purchasing an engine certified to the emission standards in Condition III.E.2, as applicable for the same engine class and maximum engine power. In addition, the Permittee shall meet one of the following requirements:
[40 CFR 60.4243(a)]

a. If the Permittee operates and maintains the certified SI ICE and control device according to the manufacturer's emission-related written instructions, the Permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. Also, the Permittee shall meet the applicable requirements of 40 CFR 1068, Subparts A through D. If engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI ICE will not be considered out of compliance.
[40 CFR 60.4243(a)(1)]

b. If the Permittee does not operate and maintain the certified stationary SI ICE and control device in accordance with the manufacturer's emission-related written instructions, the SI ICE will be considered a non-certified engine, and the Permittee shall demonstrate compliance for stationary SI ICE less than 100 HP by keeping a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.
[40 CFR 60.4243(a)(2)(i)]

5. Recordkeeping and Reporting Requirements

a. For each SI RICE, the Permittee shall maintain records of the following:

(1) Maintenance conducted on the engine;
[40 CFR 60.4245(a)(2)]

(2) If the SI RICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards in Condition III.E.2 and information as required in 40 CFR Parts 90, 1048, 1054, and 1060 as applicable; and
[40 CFR 60.4245(a)(3)]

(3) If the SI RICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to Condition III.E.4.b, documentation that the engine meets the emission standards.
[40 CFR 60.4245(a)(4)]

b. For the emergency RICE greater than 25 hp and less than 130 hp manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the stationary SI ICE that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation.
[40 CFR 60.4245(b)]

6. Permit Shield

Compliance with the requirements of Condition III.E shall be deemed compliance with 40 CFR 60.4231(a)(4), 60.4231(c), 60.4233(a), 60.4233(c), 60.4234, 60.4237(c), 60.4243(a), 60.4243(d), 60.4245(a)(2), 60.4245(a)(3), 60.4245(a)(4), and 60.4245(b).

[A.A.C. R18-2-325]

F. New Emergency and Non-Emergency Engines Subject to the NESHAP Requirements for Stationary RICE Under 40 CFR 63 Subpart ZZZZ

1. Applicability

The engines subject to the requirements of Condition III.F are identified in the last column of the Equipment List in Attachment "E."

2. Compliance

The Permittee shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII for compression ignition engines (Condition III.C or III.D) or 40 CFR 60 Subpart JJJJ for spark ignition engines (Condition III.E), as applicable. No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ.

[40 CFR 63.6590(c)]

3. Permit Shield

Compliance with requirements of Condition III.F shall be deemed compliance with 40 CFR 63.6590(c).

[A.A.C. R18-2-325]

IV. STORAGE TANKS AND GASOLINE DISPENSING FACILITIES

This Section applies to the storage tanks and gasoline dispensing facilities associated with Operation 011.

A. Diesel Storage Tanks Subject to Standards of Performance for Unclassified Sources Under A.A.C. R18-2-730

1. Applicability

The diesel storage tanks subject to the requirements of this Condition IV.A are identified in the last column of the Equipment List in Attachment "E."

2. Operational Limitations

a. The Permittee shall not cause, allow, or permit the emission of gaseous or odorous materials from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.
[A.A.C. R18-2-730.D]

b. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.
[A.A.C. R18-2-730.F]

c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]

3. Permit Shield

Compliance with requirements of Condition IV.A shall be deemed compliance with A.A.C. R18-2-730.D, -730.F, and -730.G.
[A.A.C. R18-2-325]

B. Gasoline Storage Tanks Subject to the Standards of Performance for Existing Storage Vessels for Petroleum Liquids Under A.A.C. R18-2-710

1. Applicability

The gasoline storage tanks subject to the requirements of Condition IV.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. The petroleum liquid storage tanks shall be equipped with a submerged filling device, or acceptable equivalent, for the control of hydrocarbon emissions.
[A.A.C. R18-2-710.B]

b. All pumps and compressors which handle volatile organic compounds shall be equipped with mechanical seals or other equipment of equal efficiency to prevent the release of organic contaminants into the atmosphere.
[A.A.C. R18-2-710.D]

3. Monitoring, Recordkeeping, and Reporting Requirements

For each petroleum liquid storage vessel, the Permittee shall maintain a file of the type of petroleum liquid stored, the typical Reid vapor pressure of the petroleum liquid stored, and the dates of storage. Dates on which the storage vessel is empty shall be shown.

[A.A.C. R18-2-710.E.1]

4. Permit Shield

Compliance with the requirements of Condition IV.B shall be deemed compliance with A.A.C. R18-2-710.B, -710.D, and -710.E.1.

[A.A.C. R18-2-325]

C. Gasoline Dispensing Facilities and Associated Gasoline Storage Tanks Subject to the NESHAP Requirements Under 40 CFR 63 Subpart CCCCCC

1. Applicability

a. Condition IV.C applies to the Gasoline Dispensing Facilities (GDF) and associated gasoline storage tanks as identified in the last column of the Equipment List in Attachment "E."

b. Condition IV.C also applies to the associated equipment components in vapor or liquid gasoline service, pressure/vacuum vents on gasoline storage tanks and equipment necessary to unload product from cargo tanks into storage tanks at GDFs. The equipment used for the refueling of motor vehicles is not covered.

[40 CFR 63.11111(a) and 63.11112(a)]

2. Operational Limitations

a. The Permittee shall, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.11115(a)]

b. Requirements for GDFs with Monthly Throughputs of Less Than 10,000 Gallons

(1) The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

[40 CFR 63.11111(b), 63.11116(a)]

(a) Minimize gasoline spills;

(b) Clean up spills as expeditiously as practicable;

(c) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a cover having a gasketed seal when not in use;

(d) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

(2) Portable gasoline containers that meet the requirements of 40 CFR 59 Subpart F, are considered acceptable for compliance with Condition IV.C.2.b(1)(c).

[40 CFR 63.11111(b) and 63.11116(d)]

c. Requirements for GDFs with Monthly Throughputs Greater Than or Equal to 10,000 Gallons and Less Than 100,000 Gallons

(1) The Permittee shall comply with all the requirements of Condition IV.C.2.b(1) and IV.C.2.b(2) above.

[40 CFR 63.11111(c) and 63.11117(a)]

(2) Except as specified in Condition IV.C.2.c(3), the Permittee shall load gasoline into storage tanks by utilizing submerged filling, as defined in 40 CFR 63.11132, and according to the following specifications. The applicable distances in Conditions IV.C.2.c(2)(a) and IV.C.2.c(2)(b) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.

(a) The submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.

[40 CFR 63.11117(b)(1)]

(b) The submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.

[40 CFR 63.11117(b)(2)]

(c) Submerged fill pipes not meeting the specifications in Conditions IV.C.2.c(2)(a) and IV.C.2.c(2)(b) shall be allowed if the Permittee can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Director's delegated representative during the course of a site visit.

[40 CFR 63.11117(b)(3)]

(3) Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements in Condition IV.C.2.c(2) but must comply only with all of the requirements in 40 CFR 63.11116.

[40 CFR 63.11117(c)]

d. The dispensing of gasoline from a fixed gasoline storage tank at a GDF into a portable gasoline tank for the on-site delivery and subsequent dispensing of the gasoline into the fuel tank of a motor vehicle or other gasoline-fueled engine or equipment used within the area source is only subject to Condition IV.C.2.b.

[40 CFR 63.11111(j)]

e. Increases in Monthly Throughput

(1) If the monthly throughput of a GDF subject to Condition IV.C.2.b ever equals or exceeds 10,000 gallons but remains less than 100,000 gallons, the GDF shall comply with the requirements in Condition IV.C.2.c and all other requirements applicable to GDFs with monthly throughputs greater than or equal to 10,000 gallons and less than 100,000 gallons no later than 3 years after the affected GDFs becomes subject to the new requirements. The GDF shall remain subject to the requirements, even if the throughput later falls below the 10,000 gallons throughput threshold.

[40 CFR 63.11111(c) and (i), 63.11113(c)]

(2) If the throughput of a GDF subject to Condition IV.C.2.c ever exceeds 100,000 gallons, the GDF shall comply with the requirements in 40 CFR 63 Subpart CCCCCC for GDF with monthly throughputs greater than or equal to 100,000 gallons no later than 3 years after the affected GDFs becomes subject to the new requirements. The GDF shall remain subject to the requirements even if the throughput later falls below the 100,000 gallons throughput threshold.

[40 CFR 63.11111(d) and (i), 63.11113(c)]

3. Notification Requirements for GDFs with Monthly Throughputs Greater Than or Equal to 10,000 Gallons and Less Than 100,000 Gallons

a. The Permittee shall submit an Initial Notification to the Director and the Administrator at the time a GDF becomes subject to the control requirements of Condition IV.C.2.c. The Initial Notification must contain the information specified in 40 CFR 63.11124(a)(1)(i) through 40 CFR 63.11124(a)(1)(iii).

[40 CFR 63.11111(c), 63.11117(e), and 63.11124(a)(1)]

b. The Permittee shall submit a Notification of Compliance Status to the Director and the Administrator, as specified in 40 CFR 63.13 within 60 days of the applicable compliance date specified in 40 CFR 63.11113. The Notification of Compliance Status must be signed by a responsible official who must certify its accuracy, must indicate whether the source has complied with the requirements of 40 CFR 63 Subpart CCCCCC, and must indicate whether the GDF's monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If the GDF is in compliance with the requirements of this 40 CFR 63 Subpart CCCCCC at the time the Initial Notification is due, the Notification of Compliance Status may be

submitted in lieu of the Initial Notification provided it contains the information required by 40 CFR 63.11124(a)(1).

[40 CFR 63.11111(c), 63.11117(e), and 63.11124(a)(2)]

4. Monitoring, Recordkeeping and Reporting Requirements

a. The Permittee shall upon request by the Director, demonstrate that the monthly throughput for an affected source is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. The records shall be kept for a period of 5 years.

[40 CFR 63.11111(e]

b. Monthly throughput is the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

[40 CFR 63.11132]

c. The Permittee shall have records available within 24 hours of a request by the Director to document gasoline throughput.

[63.11116(b) and 63.11117(d)]

d. The Permittee shall maintain records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

[40 CFR 63.11115(b) and 63.11125(d)(1)]

e. The Permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with Condition IV.C.2.a including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR63.11115(b) and 63.11125(d)(2)]

f. For GDFs with monthly throughputs greater than or equal to 10,000 gallons and less than 100,000 gallons, the Permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with Condition IV.C.2.a including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.

[40 CFR 63.11126(b)]

5. Permit Shield

Compliance with the requirements of Condition IV.C shall be deemed compliance with 40 CFR 63.11111(a), 63.11111(b), 63.11111(c), 63.11111(e), 63.11111(j),

63.11112(a), 63.11113(c), 63.11115(a), 63.11115(b), 63.11116(a), 63.11116(b), 63.11116(d), 63.11117(a), 63.11117(b), 63.11117(c), 63.11117(d), 63.11117(e), 63.11124(a)(1), 63.11124(a)(2), 63.11125(d), 63.11126(b), and 63.11132.

[A.A.C. R18-2-325]

V. FUGITIVE DUST REQUIREMENTS

A. Applicability

Section V applies to any non-point source of fugitive dust in the facility.

B. Particulate Matter and Opacity

Open Areas, Roadways & Streets, Storage Piles, and Material Handling

1. Emission Limitations and Standards

a. Opacity of emissions from any fugitive dust non-point source shall not be greater than 40%.

[A.A.C. R18-2-614]

b. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

(1) For a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, keep dust and other types of air contaminants to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

[A.A.C. R18-2-604.A]

(2) Keep dust to a minimum from vacant lots or an urban or suburban open area where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

[A.A.C. R18-2-604.B]

(3) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway or alley is used, repaired, constructed, or reconstructed;

[A.A.C. R18-2-605.A]

(4) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust. Earth or other material that is deposited by trucking or earth moving equipment shall be

removed from paved streets by the person responsible for such deposits.

[A.A.C. R18-2-605.B]

(5) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, screening, handling, transporting or conveying materials or other operations likely to result in significant amounts of airborne dust to prevent excessive amounts of particulate matter from becoming airborne;

[A.A.C. R18-2-606]

(6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored to prevent excessive amounts of particulate matter from becoming airborne;

[A.A.C. R18-2-607.A]

(7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents to prevent excessive amounts of particulate matter from becoming airborne;

[A.A.C. R18-2-607.B]

(8) Operate mineral tailings piles by taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director;

[A.A.C R18-2-608]

(9) Any other method as proposed by the Permittee and approved by the Director.

[A.A.C. R18-2-306.A.3.c]

2. Air Pollution Control Requirements

Haul Roads and Storage Piles

Maintaining sufficient moisture, gravel application, paving, sweeping, or an equivalent control, shall be used to control visible emissions from haul roads and storage piles.

[A.A.C. R18-2-306.A.2 and -331.A.3.d]
[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

a. The Permittee shall maintain records of the dates on which any of the activities listed in Condition V.B.1.b above were performed and the control measures that were adopted.

[A.A.C. R18-2-306.A.3.c]

b. Opacity Monitoring Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a monthly basis for all emission units subject to Section V.

[A.A.C. R18-2-306.A.3.c]

C. Permit Shield

Compliance with the requirements of Section V shall be deemed compliance with A.A.C. R18-2-604. -605, -606, 607, -608, and -614.

[A.A.C. R18-2-325]

VI. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Emission Limitations and Standards

a. Particulate Matter

The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

(1) Wet blasting;

(2) Effective enclosures with necessary dust collecting equipment; or

(3) Any other method approved by the Director.

[A.A.C. R18-2-726]

b. Opacity

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall make a record of the following:

a. The date the project was conducted;

b. The duration of the project; and

c. Type of control measures employed.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the requirements of Condition VI.A shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

[A.A.C.R18-2-325]

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations and Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

(1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.
[A.A.C.R18-2-727.A]

(2) The Permittee or its designated on-site contractor shall not either:

(a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or

(b) Thin or dilute any architectural coating with a photochemically reactive solvent.
[A.A.C.R18-2-727.B]

(3) For the purposes of Condition VI.B.1.a(1) above, a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Condition VI.B.1.a(2), or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

(a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.

(c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.
[A.A.C.R18-2-727.C]

(4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Condition VI.B.1.a(2) above, it shall be considered to be a

member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-2-727.D]

b. Monitoring and Recordkeeping Requirements

(1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:

(a) The date the project was conducted;

(b) The duration of the project;

(c) Type of control measures employed;

(d) Safety Data Sheets (SDS) for all paints and solvents used in the project; and

(e) The amount of paint consumed during the project.

(2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition VI.B.1.b(1) above.

[A.A.C. R18-2-306.A.3.c]

2. Opacity

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity.

[A.A.C. R18-2-702.B.3]

3. Permit Shield

Compliance with the requirements of Condition VI.B shall be deemed compliance with A.A.C.R18-2-702.B.3 and 727.

[A.A.C. R18-2-325]

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation and Standard

The Permittee shall comply with all applicable requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

[A.A.C. R18-2-1101.A.12]

2. Monitoring and Recordkeeping Requirement

The Permittee shall keep all required records in a file. The required records shall include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the requirements of Condition VI.C shall be deemed compliance with A.A.C. R18-2-1101.A.12.

[A.A.C. R18-2-325]

ATTACHMENT "C" – MINING, ORE PROCESSING, AND SUPPORTING OPERATIONS

I. MINING OPERATIONS

This Section applies to Mining Operations (Operation 001) and Alternate Operating Scenario 5 (AOS5).

A. Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721

1. Applicability

The facilities subject to the requirements of this Condition I.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-721.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition I.A.2.a(1)(a).

(2) For purposes of Condition I.A.2.a(1), the total process weight from all similar units employing a similar type process shall be

used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-721.D]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition I.A.2.b(1), the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Air Pollution Prevention and Control Requirements

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize wet suppression on the following processes to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition I.A.2 above. Wet suppression options include water sprays, surfactant use, dust suppression fans, water jets, foggers, inherent moisture content, or other equivalent control methods.

[A.A.C. R18-2-306.A.2]

(1) Process #001-002: Haul Truck Unloading to Dump Pocket Feed Hoppers 1-3

(2) Process #001-186: Apron Feeder AF1 to In-Pit Crusher 1

(3) Process #001-187: Apron Feeder AF2 to In-Pit Crusher 2

(4) Process #001-249: Apron Feeder AF3 to In-Pit Crusher 3

(5) Process #001-356: Conveyor Belt P14 to Mill IOS

(6) Process #001-344: Conveyor Belt P12 to Conveyor Belt P10

(7) Process #001-016: Conveyor Belt P6 to Mill IOS

(8) Process #001-226: Conveyor Belt P10 to MFL IOS

b. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install*, maintain, and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.d, e]
[Material permit conditions are indicated by underline and italics]

(1) *P1/P13 FFDC (Process #001-354)*

(2) *P13/P14 and P13/R9 FFDC (Process #001-355)*

c. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain, and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

(1) *P11/P5 and P11/P12 FFDC (Process #001-251)*

(2) *P5/P6 FFDC (Process #001-015)*

(3) *DC2/P9 and P9/P10 FFDC (Process #001-225)*

(4) *DC2/P5 FFDC (Process #001-325)*

(5) *Mill IOS/R1A FFDC (Process #001-299)*

(6) *Mill IOS/R1B FFDC (Process #001-300)*

(7) *R1A and R1B/R7 FFDC (Process #001-272)*

(8) *R2/R11 FFDC (Process #001-278)*

(9) *MFL IOS/R8 FFDC (Process #001-228)*

(10) *R8/R9 FFDC (Process #001-229)*

d. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the R1A and R1B/R2 Bag Collector 1 (Process #001-277) in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

4. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

b. Except for Rock Hammers 1 through 3, the Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition I.A. The periodic opacity monitoring for In-Pit Crushers 1 through 3 (required by Condition I.B.5) include emissions from Rock Hammers 1 through 3.

[A.A.C. R18-2-306.A.3.c]

5. Permit Shield

Compliance with the requirements of Condition I.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -721.B, -721.D, and -721.F.

[A.A.C. R18-2-325]

B. Facilities Subject to the NSPS Requirements for Metallic Mineral Processing Plant Affected Facilities Under 40 CFR 60 Subpart LL

1. Applicability

The facilities subject to the requirements of Condition I.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.05 g/dscm).

[40 CFR 60.382(a)(1)]

b. Opacity

(1) *On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that exhibit greater than 7% opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device*.

[40 CFR 60.382(a)(2) and A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

(2) *On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10% opacity*.

[40 CFR 60.382(b) and A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

4. Air Pollution Control Requirements

a. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install*, maintain, and *operate the In-Pit Crusher 1 FFDC (Process #001-353) in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.d, e]
[Material permit conditions are indicated by underline and italics]

b. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

(1) *In-Pit Crusher 2 FFDC (Process #001-006)*

(2) *In-Pit Crusher 3 and FB3/P11 FFDC (Process #001-250) (vented inside the In-Pit Crusher 3 Building)*

5. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition I.B.

[A.A.C. R18-2-306.A.3.c]

6. Performance Testing Requirements

To demonstrate continued compliance with the emission limitation in Condition I.B.2.a, the Permittee shall conduct the performance tests required by Condition I.C.3 below.

[A.A.C. R18-2-306.A.3.c and -312]

7. Permit Shield

Compliance with the requirements of Condition I.B shall be deemed compliance with 40 CFR 60.8, 60.11, 60.382(a)(1), 60.382(a)(2), 60.382(b), 60.385(a), 60.386(b)(1) and 60.386(b)(2).

[A.A.C R18-2-325]

C. Voluntary Emission Limitations

1. Applicability

The facilities subject to the requirements of this Condition I.C are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

The Permittee shall not allow the emissions of PM and PM_{10} from the processes identified in the table below to exceed the corresponding emission limits, as measured at the respective pollution control device exhaust.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

Process #	Pollution Control Device	Emission Limit (gr/dscf)	
		PM	PM_{10}
001-006	*In-Pit Crusher 2 FFDC*	*0.002*	*0.001*
001-225	*DC2/P9 and P9/P10 FFDC*	*0.002*	*0.001*
001-325	*DC2/P5 FFDC*	*0.002*	*0.001*
001-228	*MFL IOS/R8 FFDC*	*0.002*	*0.001*
001-229	*R8/R9 FFDC*	*0.002*	*0.001*
001-353	*In-Pit Crusher 1 FFDC*	*0.004*	*0.004*
001-354	*P1/P13 FFDC*	*0.004*	*0.004*
001-355	*P13/P14 and P13/R9 FFDC*	*0.004*	*0.004*
001-015	*P5/P6 FFDC*	*0.004*	*0.004*
001-299	*Mill IOS/R1A FFDC*	*0.004*	*0.004*
001-300	*Mill IOS/R1B FFDC*	*0.004*	*0.004*
001-272	*R1A and R1B/R7 FFDC*	*0.004*	*0.004*
001-278	*R2/R11 FFDC*	*0.004*	*0.004*
001-277	*R1A and R1B/R2 Bag Collector 1*	*0.007*	*0.007*
001-251	*P11/P5 and P11/P12 FFDC*	*0.004*	*0.004*
001-256	*Pollution Control Device for Crushers (AOS5)*	*Limits associated with the processes being replaced*	
001-256	*Pollution Control Device for Conveyor Belts (AOS5)*	*Limits associated with the processes being replaced*	

3. Performance Testing Requirements

a. The Permittee shall within 60 days of achieving the maximum production rate, but no later than 180 days of the startup or restart, conduct performance tests for PM and PM_{10} on the stacks of the following pollution control devices to demonstrate compliance with the emission limits in Condition I.C.2.

[A.A.C. R18-2-306.A.3.c and -312]

(1) In-Pit Crusher 1 FFDC (Process #001-353)

(2) P1/P13 FFDC (Process #001-354)

(3) P13/P14 and P13/R9 FFDC (Process #001-355)

(4) Pollution Control Device for Crushers (AOS5) (Process #001-256), if applicable.

(5) Pollution Control Device for Conveyor Belts (AOS5) (Process #001-256), if applicable.

b. For the following processes that are operational and have been tested previously, the Permittee shall conduct performance tests for PM and PM_{10} on the stacks of the associated pollution control devices a minimum of once during the permit term to demonstrate compliance with the emission limits in Condition I.C.2 above.

[A.A.C. R18-2-306.A.3.c and -312]

(1) In-Pit Crusher 2 FFDC (Process #001-006)

(2) P11/P5 and P11/P12 FFDC (Process #001-251)

(3) P5/P6 FFDC (Process #001-015)

(4) DC2/P9 and P9/P10 FFDC (Process #001-225)

(5) DC2/P5 FFDC (Process #001-325)

(6) Mill IOS/R1A FFDC (Process #001-299)

(7) Mill IOS/R1B FFDC (Process #001-300)

(8) R1A and R1B/R7 FFDC (Process #001-272)

(9) R2/R11 FFDC (Process #001-278)

(10) MFL IOS/R8 FFDC (Process #001-228)

(11) R8/R9 FFDC (Process #001-229)

(12) R1A and R1B/R2 Bag Collector 1 (Process #001-277)

c. If the results of any performance test required by Conditions I.C.3.a or I.C.3.b above is less than or equal to 70% of the applicable emission limits

in Condition I.C.2 above, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

d. If the result of any performance test required by Conditions I.C.3.a or I.C.3.b above is greater than 70% of the applicable emission limits in Condition I.C.2, the Permittee shall conduct subsequent performance test(s) for PM and PM_{10} on the stack of that pollution control device on an annual basis (between 11 and 13 months from the date of the previous test).

[A.A.C. R18-2-306.A.3.c and -312]

e. If the result of any subsequent performance test required by Condition I.C.3.d is below 70% of the applicable emission limits in Condition I.C.2, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

f. Test Methods

EPA Reference Method 5 in 40 CFR 60, Appendix A and (if necessary) EPA Reference Method 202 specified in 40 CFR 51, Appendix M shall be used to determine emissions of PM. All particulate matter measured by the above reference method can be considered to have an aerodynamic diameter less than 10 microns or EPA Reference Method 201 or 201A and (if necessary) Method 202 specified in 40 CFR 51, Appendix M can be used to determine emissions of PM_{10}.

[A.A.C. R18-2-306.A.3.c and -312]

D. Alternate Operating Scenario

The facilities subject to the requirements of Condition I.D are identified under the AOS5 section (AOS5: Primary Crushing and Overland Conveying Operations) of the Equipment List in Attachment "E."

1. The Permittee may operate the portable crushing and conveying systems when the permanent In-Pit Crushers and/or the associated overland conveying systems become non-operational.

[A.A.C. R18-2-306.A.11]

2. The portable crushing and conveying systems shall not have capacity greater than the capacity of the permanent In-Pit Crushers and/or the associated overland conveying systems being replaced.

[A.A.C. R18-2-306.A.11]

3. *At all times when operating under AOS5, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install,* maintain, and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

[A.A.C. R18-2-306.A.2 and -331.A.3.d, e]
[Material permit conditions are indicated by underline and italics]

a. *Pollution Control Device for Crushers (AOS5) (Process #001-256)*

b. *Pollution Control Device for Conveyor Belts (AOS5) (Process #001-256)*

4. The AOS5 operations shall comply with all the requirements in Conditions I.A, I.B, and I.C, above as applicable

[A.A.C. R18-2-306.A.11]

5. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall, contemporaneously with making the change from one operating scenario to another, record in a log a record of the scenario under which it is operating.

[A.A.C. R18-2-306.A.11]

II. MORENCI CONCENTRATOR

This Section applies to operations associated with the Morenci Concentrator (Operation 002), AOS1, and AOS2.

A. Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721

1. Applicability

The facilities subject to the requirements of this Condition II.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-721.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum

allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition II.A.2.a(1)(a) above.

(2) For the purposes of Condition II.A.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-721.D]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition II.A.2.b(1), the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Air Pollution Prevention and Control Requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain *and operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

a. *Fine Crushing Line C to 3B to 3 FFDC (Process #002-035)*

b. *Fine Crushing Line C to 3B to 3A FFDC (Process #002-036)*

c. *1A/COSB FFDCs 1 through 9 (Process #002-023) and 1B/COSB FFDCs 1 through 9 (Process #002-024) (vented inside the Coarse Ore Storage Bin)*

d. *R7/1A and 1B FFDC (Process #002-022), COSB/AFA/2A FFDC (Process #002-025), COSB/AFB/2B FFDC (Process #002-026), COSB/AFC/2C FFDC (Process #002-027), COSB/AFD/2D FFDC (Process #002-028), Fine Crushing Line A FFDC 2 (Process #002-033) and Fine Crushing Line B FFDC 2 (Process #002-034) (vented inside the Morenci Concentrator Building)*

e. *Fine Crushing Line D FFDC 2 (Process #002-326) and 3/4/5 FFDC (Process #002-038) (vented indoors)*

f. *5A/FOSB FFDCs 1 through 9 (Process #002-040) and 5/FOSB FFDCs 1 through 9 (Process #002-041) (vented inside the Fine Ore Storage Bin)*

4. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

b. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition II.A.

[A.A.C. R18-2-306.A.3.c]

5. Permit Shield

Compliance with the requirements of Condition II.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -721.B, -721.D, and -721.F.

[A.A.C. R18-2-325]

B. Facilities Subject to the NSPS Requirements for Metallic Mineral Processing Plant Affected Facilities Under 40 CFR 60 Subpart LL

1. Applicability

The facilities subject to the requirements of this Condition II.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.05 g/dscm).

[40 CFR 60.382(a)(1)]

b. Opacity

(1) *On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that exhibit greater than 7% opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device*.

[40 CFR 60.382(a)(2) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

(2) *On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not*

cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10% opacity.

[40 CFR 60.382(b) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

4. Air Pollution Prevention and Control Requirements

a. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install,* maintain, and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

(1) *West Transfer Points FFDC (Process #002-311)*

(2) *West Surge Bin FFDC (Process #002-312)*

(3) *West RC FFDC (Process #002-313)*

(4) *East Transfer Points FFDC (Process #002-314)*

(5) *East Surge Bin FFDC (Process #002-315)*

(6) *East RC FFDC (Process #002-316)*

[A.A.C. R18-2-306.A.2 and -331.A.3.d, e]
[Material permit conditions are indicated by underline and italics]

b. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable,* maintain and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

(1) *Fine Crushing Line A FFDC 1 (Process # 002-029) (vented inside the Morenci Concentrator Building)*

(2) *Fine Crushing Line B FFDC 1 (Process #002-030)*

(3) *Fine Crushing Line C FFDC 1 (Process #002-031)*

(4) *Fine Crushing Line D FFDC 1 (Process #002-032)*

(5) *3A/4A/5A FFDC (Process #002-039) (vented indoors)*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

5. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition II.B.

[A.A.C. R18-2-306.A.3.c]

6. Performance Testing Requirements

a. Initial Performance Test

(1) The Permittee shall conduct initial performance tests as specified in Conditions II.B.6.a(2) through II.B.6.a(6) below on the following control devices:

(a) West Transfer Points FFDC (Process #002-311)

(b) West Surge Bin FFDC (Process #002-312)

(c) West RC FFDC (Process #002-313)

(d) East Transfer Points FFDC (Process #002-314)

(e) East Surge Bin FFDC (Process #002-315)

(f) East RC FFDC (Process #002-316).

[40 CFR 60.8, 60.11]

(2) For the purpose of demonstrating initial compliance with Condition II.B.2.a, the Permittee shall conduct a performance test and submit to the Director a written report of the results of the test as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.385(a)]

(3) For the purpose of demonstrating initial compliance with Condition II.B.2.b(1), opacity observations shall be conducted concurrently with the performance tests required in Condition II.B.6.a(2) except as allowed in 40 CFR 60.11(e)(1). The minimum total time of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results along with the results of the initial performance test required by Condition II.B.6.a(2).

[40 CFR 60.11]

(4) For the purpose of demonstrating initial compliance with Condition II.B.2.b(2), opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. The minimum total time

of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.11]

(5) EPA Reference Method 5 shall be used to determine particulate matter concentration from stack emissions Method 5. The sample volume for each run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121°C (250°F)) in order to prevent water condensation on the filter.

[40 CFR 60.386(b)(1)]

(6) EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed.

[40 CFR 60.386(b)(2)]

b. To demonstrate continued compliance with the emission limitation in Condition II.B.2.a, the Permittee shall conduct the performance tests required by Condition II.C.3 below.

[A.A.C. R18-2-306.A.3.c and -312]

7. Permit Shield

Compliance with the requirements of Condition II.B shall be deemed compliance with 40 CFR 60.8, 60.11, 60.382(a)(1), 60.382(a)(2), 60.382(b), 60.385(a), 60.386(b)(1) and 60.386(b)(2).

[A.A.C. R18-2-325]

C. Voluntary Limitations

1. Applicability

The facilities subject to the requirements of this Condition II.C are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

The Permittee shall not allow the emissions of PM and PM_{10} from the following processes identified in the table below to exceed the corresponding emission limits, as measured at the respective pollution control device exhaust.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

Process #	*Pollution Control Device*	*Emission Limit (gr/dscf)*	
		PM	*PM_{10}*
002-030	*Fine Crushing Line B FFDC 1*	*0.002*	*0.001*
002-031	*Fine Crushing Line C FFDC 1*	*0.002*	*0.001*
002-032	*Fine Crushing Line D FFDC 1*	*0.002*	*0.001*
002-035	*Fine Crushing Line C to 3B to 3 FFDC*	*0.002*	*0.001*
002-036	*Fine Crushing Line C to 3B to 3A FFDC*	*0.002*	*0.001*
002-311	*West Transfer Points FFDC*	*0.004*	*0.004*
002-312	*West Surge Bin FFDC*	*0.004*	*0.004*
002-313	*West RC FFDC*	*0.004*	*0.004*
002-314	*East Transfer Points FFDC*	*0.004*	*0.004*
002-315	*East Surge Bin FFDC*	*0.004*	*0.004*
002-316	*East RC FFDC*	*0.004*	*0.004*

3. Performance Testing Requirements

a. The Permittee shall within 60 days of achieving the maximum production rate, but no later than 180 days of the startup, conduct performance tests for PM and PM_{10} on the stacks of the following pollution control devices to demonstrate compliance with the emission limits in Condition II.C.2.

[A.A.C. R18-2-306.A.3.c and -312]

(1) West Transfer Points FFDC (Process #002-311)

(2) West Surge Bin FFDC (Process #002-312)

(3) West RC FFDC (Process #002-313)

(4) East Transfer Points FFDC (Process #002-314)

(5) East Surge Bin FFDC (Process #002-315)

(6) East RC FFDC (Process #002-316)

b. For the following process that are operational and have been tested previously, the Permittee shall conduct performance tests for PM and PM_{10} on the stacks of the associated pollution control devices a minimum of once during the permit term to demonstrate compliance with the emission limits in Condition II.C.2 above.

[A.A.C. R18-2-306.A.3.c and -312]

(1) Fine Crushing Line B FFDC 1 (Process #002-030)

(2) Fine Crushing Line C FFDC 1 (Process #002-031)

(3) Fine Crushing Line D FFDC 1 (Process #002-032)

(4) Fine Crushing Line C to 3B to 3 FFDC (Process #002-035)

(5) Fine Crushing Line C to 3B to 3A FFDC (Process #002-036)

c. If the results of any performance test required by Conditions II.C.3.a or II.C.3.b above is less than or equal to 70% of the applicable emission limits in Condition II.C.2 above, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

d. If the result of any performance test required by Conditions II.C.3.a or II.C.3.b above is greater than 70% of the applicable emission limits in Condition II.C.2, the Permittee shall conduct subsequent performance test(s) for PM and PM_{10} on the stack of that pollution control device on an annual basis (between 11 and 13 months from the date of the previous test).

[A.A.C. R18-2-306.A.3.c and -312]

e. If the result of any subsequent performance test required by Condition II.C.3.d is below 70% of the applicable emission limits in Condition II.C.2, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

f. Test Methods

EPA Reference Method 5 in 40 CFR 60, Appendix A and (if necessary) EPA Reference Method 202 specified in 40 CFR 51, Appendix M shall be used to determine emissions of PM. All particulate matter measured by the above reference method can be considered to have an aerodynamic diameter less than 10 microns or EPA Reference Method 201 or 201A and (if necessary) Method 202 specified in 40 CFR 51, Appendix M can be used to determine emissions of PM_{10}.

[A.A.C. R18-2-306.A.3.c and -312]

D. Alternate Operating Scenarios

1. AOS1 – Morenci Concentrator Crushing Operations

The facilities subject to the requirements of Condition II.D.1 are identified under the AOS1 section (AOS1: Morenci Concentrator Crushing Operations) of the Equipment List in Attachment "E."

a. When operating under AOS1, the Permittee may operate the VLE Pilot Plant and all equipment associated with the Morenci Concentrator excluding those identified in Condition II.D.1.b.

[A.A.C. R18-2-306.A.11]

b. When operating under AOS1, the Permittee shall not operate:

[A.A.C. R18-2-306.A.11]

(1) East and west quaternary crushing systems;

(2) Replacement Conveyor Belt 4A; and

(3) Extended Conveyor Belts 3, 3A, and 5A.

c. Air Pollution Prevention and Control Requirements

(1) At all times when operating under AOS1, including periods of startup, shutdown, and malfunction, the Permittee shall to the extent practicable, utilize wet suppression on Process #016-358: VLE Conveyor Belt 1 to VLE Dry Screen and VLE Dry Screening to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition II.B.2.b(2). Wet suppression options include water sprays, surfactant use, water jets, foggers, inherent moisture content, or other equivalent control methods.

[A.A.C. R 18-2-306.A.2]

(2) *At all times when operating under AOS1, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain, and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

(a) Fine Crushing Line A FFDC 2 (Process # 002-033) (vented inside the Morenci Concentrator Building)

(b) Fine Crushing Line B FFDC 2 (Process #002-034) (vented inside the Morenci Concentrator Building)

(c) Fine Crushing Line C to 3B to 3 FFDC (Process #002-035)

(d) Fine Crushing Line C to 3B to 3A FFDC (Process #002-036)

(e) Fine Crushing Line D FFDC 2 (Process #002-326) (vented indoors)

(f) 3/4/5 FFDC (Process #002-038) (vented indoors)

(g) 3A/4A/5A FFDC (Process #002-039) (vented indoors)

(h) 5A/FOSB FFDCs 1 through 9 (Process #002-040) (vented inside the Fine Ore Storage Bin)

d. The AOS1 operations shall comply with all the requirements in Conditions II.A, II.B, and II.C, as applicable.

[A.A.C. R18-2-306.A.11]

e. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall, contemporaneously with making the change from one operating scenario to another, record in a log a record of the scenario under which it is operating.

[A.A.C. R18-2-306.A.11]

2. AOS2 – Morenci Concentrator Bulk Flotation Operations

The facilities subject to the requirements of Condition II.D.2 are identified under the AOS2 section (AOS2: Morenci Concentrator Bulk Flotation Operations) of the Equipment List in Attachment "E."

a. When operating under AOS2, the Permittee shall operate the 109 Bulk Rougher Cells with six Hydro Cone Clusters, six Regrind Mills, forty-eight Cleaner and Scavenger Cells, and four Recleaner Column Cells (Process #002-352).

[A.A.C. R18-2-306.A.11]

b. When operating under AOS2, the Permittee shall not operate the 109 Bulk Rougher Cells with one Hydro Cone Cluster, two Regrind Mills, four Cleaner Cells, forty-eight Scavenger Cells, three Primary Column Cells, and three Secondary Column Cells (Process #002-321).

[A.A.C. R18-2-306.A.11]

c. The AOS2 operations shall comply with all the requirements in Conditions II.A and II.E, as applicable.

[A.A.C. R18-2-306.A.11]

d. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall, contemporaneously with making the change from one operating scenario to another, record in a log a record of the scenario under which it is operating.

[A.A.C. R18-2-306.A.11]

E. Facilities Subject to the Standards of Performance for Unclassified Sources Under A.A.C. R18-2-730

1. Applicability

The facilities subject to the requirements of this Condition II.E are identified in the last column of the Equipment List in Attachment "E."

2. Operational Limitations

a. The Permittee shall not cause, allow, or permit the emission of gaseous or odorous materials from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.
[A.A.C. R18-2-730.D]

b. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.
[A.A.C. R18-2-730.F]

c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]

d. The Permittee shall not allow H_2S to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 0.03 parts per million by volume for any averaging period of 30 minutes or more.
[A.A.C. R18-2-730.H]

3. Permit Shield

Compliance with the requirements of Condition II.E shall be deemed compliance with A.A.C. R18-2-730.D, -730.F, -730.G, and -730.H.
[A.A.C. R18-2-325]

III. METCALF MFL PLANT

This Section applies to operations associated with the Metcalf MFL Plant (Operation 003).

A. Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721

1. Applicability

The facilities subject to the requirements of this Condition III.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-721.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition III.A.2.a(1)(a) above.

(2) For purposes of Condition III.A.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-721.D]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition III.A.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Air Pollution Prevention and Control Requirements

a. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize wet suppression on Process #003-199 (Conveyor Belt S11 to FOIS) to minimize particulate matter emissions and comply with applicable emission limitation and standards of Conditions III.A.2.a and III.A.2.b. Wet suppression options include water sprays, surfactant use, dust suppression fans, water jets, foggers, inherent moisture content, or other equivalent control methods.

[A.A.C. R18-2-306.A.2]

b. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the following air pollution control devices in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

(1) *Fabric Filter Dust Collectors*

(a) *R9/R10 FFDC (Process #003-273)*

(b) *R10/R3 FFDC (Process #003-330)*

(c) *FFDC 8 (Process #003-303)*

(2) *Bag Collectors*

(a) *R3/R4 Bag Collector 3 (Process #003-079)*

(b) *R4/R5/R6 Bag Collector 4 (Process #003-080)*

(c) *FOIS/A1A Bag Collector 7 (Process #003-201)*

(d) *A1A/A2A Bag Collector 8 (Process #003-202)*

(e) *A1A/A2C Bag Collector 9 (Process #003-203)*

(3) *Scrubbers*

(1) Scrubber 3C (Process #003-082)

(2) Scrubber 5 (Process #003-089)

(4) *Dust Collectors*

Conveyor Belt 9 Dust Collector (Process #003-307) (vented inside the Metcalf MFL Crusher Building)

4. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall calibrate,* maintain, and operate *a monitoring device for the continuous measurement of the change in pressure of the gas stream through Scrubber 3C (Process #003-082) and Scrubber 5 (Process #003-089). The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals (±1 inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.*

[A.A.C. R18-2-306.A.3.c and -331.A.3.c]
[Material permit conditions are indicated by underline and italics]

b. *The Permittee shall calibrate,* maintain, and operate *a monitoring device for the continuous measurement of the scrubbing liquid flow rate to Scrubber 3C (Process #003-082) and Scrubber 5 (Process #003-089). The monitoring device must be certified by the manufacturer to be accurate within ±5% of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.*

[A.A.C. R18-2-306.A.3.c and -331.A.3.c]
[Material permit conditions are indicated by underline and italics]

c. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

d. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition III.A.

[A.A.C. R18-2-306.A.3.c]

5. Permit Shield

Compliance with the requirements of Condition III.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -721.B, -721.D, and -721.F.

[A.A.C. R18-2-325]

B. Facilities Subject to the NSPS Requirements for Metallic Mineral Processing Plant Affected Facilities Under 40 CFR 60 Subpart LL

1. Applicability

The facilities subject to the requirements of Condition III.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.05 g/dscm).

[40 CFR 60.382(a)(1)]

b. Opacity

(1) *On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that exhibit greater than 7% opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device*.

[40 CFR 60.382(a)(2) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

(2) *On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10% opacity*.

[40 CFR 60.382(b) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

4. Air Pollution Prevention and Control Requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and *operate the following air pollution control devices in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

a. Fabric Filter Dust Collectors

(1) FFDC 3A (Process #003-317)

(2) FFDC 6A (Process #003-301)

(3) FFDC 6B (Process #003-302)

(4) FFDC 1 (Process #003-304)

(5) 14/15 FFDC (Process #003-320)

(6) 15/16 FFDC (Process #003-331)

(7) 16/S11 FFDC (Process #003-309)

b. Dust Collectors

Tertiary Crushing Dust Collector (Process #003-306) (vented inside the Metcalf MFL Crusher Building)

c. Scrubber 4 (Process #003-088)

5. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall calibrate*, maintain, and operate *a monitoring device for the continuous measurement of the change in pressure of the gas stream through Scrubber 4 (Process #003-088). The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals (±1 inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions*.

[40 CFR 60.384(a), A.A.C. R18-2-331.A.3.c]
[Material permit conditions are indicated by underline and italics]

b. *The Permittee shall calibrate*, maintain, and operate *a monitoring device for the continuous measurement of the scrubbing liquid flow rate to Scrubber 4 (Process #003-088). The monitoring device must be certified by the manufacturer to be accurate within ±5% of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions*.

[40 CFR 60.384(b), A.A.C. R18-2-331.A.3.c]
[Material permit conditions are indicated by underline and italics]

c. During the initial performance test of a wet scrubber, and at least weekly thereafter, the Permittee shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

[40 CFR 60.385(b)]

d. After the initial performance test of a wet scrubber, the Permittee shall submit semiannual reports to the Director of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ±30% from the average obtained during the most recent performance test.

[40 CFR 60.385(c)]

e. The reports required under Condition III.B.5.d shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

[40 CFR 60.385(d)]

f. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition III.B.

[A.A.C. R18-2-306.A.3.c]

6. Performance Testing Requirements

To demonstrate continued compliance with the emission limitation in Condition III.B.2.a, the Permittee shall conduct the performance tests required by Condition III.C.3.

[A.A.C. R18-2-306.A.3.c and -312]

7. Permit Shield

Compliance with the requirements of Condition III.B shall be deemed compliance with 40 CFR 60.382(a)(1), 60.382(a)(2), 60.382(b), 60.384(a), 60.384(b), 60.385(a), 60.385(b), 60.385(c), and 60.385(d).

[A.A.C. R18-2-325]

C. Voluntary Emission Limitations

1. Applicability

The facilities subject to the requirements of this Condition III.C are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

The Permittee shall not allow the emissions of PM and PM_{10} from the processes identified in the table below to exceed the corresponding emission limits, as measured at the respective pollution control device exhaust.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

Process #	Pollution Control Device	Emission Limit (gr/dscf)	
		PM_{10}	PM
003-273	*R9/R10 FFDC*	*0.002*	*0.001*
003-330	*R10/R3 FFDC*	*0.004*	*0.004*
003-317	*FFDC 3A*	*0.004*	*0.004*
003-320	*14/15 FFDC*	*0.004*	*0.004*
003-331	*15/16 FFDC*	*0.004*	*0.004*
003-309	*16/S11 FFDC*	*0.004*	*0.004*
003-301	*FFDC 6A*	*0.005*	*0.005*
003-302	*FFDC 6B*	*0.005*	*0.005*
003-303	*FFDC 8*	*0.005*	*0.005*

Process #	Pollution Control Device	Emission Limit (gr/dscf)	
		PM_{10}	PM
003-304	*FFDC 1*	*0.005*	*0.005*
003-079	*R3/R4 Bag Collector 3*	*0.007*	*0.007*
003-080	*R4/R5/R6 Bag Collector 4*	*0.007*	*0.007*
003-201	*FOIS/A1A Bag Collector 7*	*0.007*	*0.007*
003-202	*A1A/A2A Bag Collector 8*	*0.007*	*0.007*
003-203	*A1A/A2C Bag Collector 9*	*0.007*	*0.007*
003-082	*Scrubber 3C*	*0.01*	*0.01*
003-089	*Scrubber 5*	*0.01*	*0.01*
003-088	*Scrubber 4*	*0.01*	*0.01*

3. Performance Testing Requirements

a. For the following processes that are operational and have been tested previously, the Permittee shall conduct performance tests for PM and PM_{10} on the stacks of the pollution control devices a minimum of once during the permit term to demonstrate compliance with the emission limits in Condition III.C.2.

[A.A.C. R18-2-306.A.3.c and -312]

(1) R9/R10 FFDC (Process #003-273)

(2) R10/R3 FFDC (Process #003-330)

(3) FFDC 3A (Process #003-317)

(4) FFDC 6A (Process #003-301)

(5) FFDC 6B (Process #003-302)

(6) FFDC 1 (Process #003-304)

(7) FFDC 8 (Process #003-303)

(8) 14/15 FFDC (Process #003-320)

(9) 15/16 FFDC (Process #003-331)

(10) 16/S11 FFDC (Process #003-309)

(11) R3/R4 Bag Collector 3 (Process #003-079)

(12) R4/R5/R6 Bag Collector 4 (Process #003-080)

(13) FOIS/A1A Bag Collector 7 (Process #003-201)

(14) A1A/A2A Bag Collector 8 (Process #003-202)

(15) A1A/A2C Bag Collector 9 (Process #003-203)

(16) Scrubber 3C (Process #003-082)

(17) Scrubber 5 (Process #003-089)

(18) Scrubber 4 (Process #003-088)

b. If the results of any performance test required by Condition III.C.3.a is less than or equal to 70% of the applicable emission limits in Condition III.C.2, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

c. If the result of any performance test required by Condition III.C.3.a is greater than 70% of the applicable emission limits in Condition III.C.2, the Permittee shall conduct subsequent performance test(s) for PM and PM_{10} on the stack of that pollution control device on an annual basis (between 11 and 13 months from the date of the previous test).

[A.A.C. R18-2-306.A.3.c and -312]

d. If the result of any subsequent performance test required by Condition III.C.3.c is below 70% of the applicable emission limits in Condition III.C.2, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

e. Test Methods

EPA Reference Method 5 in 40 CFR 60, Appendix A and (if necessary) EPA Reference Method 202 specified in 40 CFR 51, Appendix M shall be used to determine emissions of PM. All particulate matter measured by the above reference method can be considered to have an aerodynamic diameter less than 10 microns or EPA Reference Method 201 or 201A and (if necessary) Method 202 specified in 40 CFR 51, Appendix M can be used to determine emissions of PM_{10}.

[A.A.C. R18-2-306.A.3.c and -312]

D. Facilities Subject to the Standards of Performance for Unclassified Sources Under A.A.C. R18-2-730

1. Applicability

The facilities subject to the requirements of this Condition III.D are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E= 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

[A.A.C. R18-2-730.A.1.a]

(b) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E= 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition III.D.2.a(1)(a) above.

[A.A.C. R18-2-730.A.1.b]

(2) For purposes of Condition III.D.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition III.D.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition III.D.

[A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with the requirements of Condition III.D shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A.1, and -730.B.

[A.A.C. R18-2-325]

IV. METCALF CONCENTRATOR

This Section applies to operations associated with the Metcalf Concentrator (Operation 017) and AOS3.

A. Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721

1. Applicability

The facilities subject to the requirements of this Condition IV.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-721.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition IV.A.2.a(1)(a) above.

(2) For purposes of Condition IV.A.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-721.D]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition IV.A.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

b. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition IV.A.

[A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with the requirements of Condition IV.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -721.B, -721.D, and -721.F.

[A.A.C. R18-2-325]

B. Facilities Subject to the NSPS Requirements for Metallic Mineral Processing Plant Affected Facilities Under 40 CFR 60 Subpart LL

1. Applicability

The facilities subject to the requirements of Condition IV.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.05 g/dscm).

[A.A.C. R18-2-901.45, 40 CFR 60.382(a)(1)]

b. Opacity

(1) *On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that exhibit greater than 7% opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device*.

[40 CFR 60.382(a)(2) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

(2) *On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10% opacity*.

[40 CFR 60.382(b) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

4. Air Pollution Control Requirements

a. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]

[Material permit conditions are indicated by underline and italics]

(1) *Secondary Screen Feed Bin FFDC (Process #017-318)*

(2) *Secondary Screening FFDC 1 (Process #017-280)*

(3) *Secondary Screening FFDC 2 (Process #017-281)*

(4) *Secondary Crusher Feed Bin FFDC (Process #017-319)*

(5) *Secondary Crushing FFDC 1 (Process #017-283)*

(6) *Secondary Crushing FFDC 2 (Process #017-284)*

(7) *Crushed Ore A/B Conveyor Transfer Point FFDC (Process #017-285)*

(8) *Crushed Ore B/Tripper Conveyor Transfer Point FFDC (Process #017-286)*

(9) *Crushed Ore Bin FFDC 1 (Process #017-287)*

(10) *Crushed Ore Bin FFDC 2 (Process #017-288)*

(11) *Crushed Ore Bin FFDC 3 (Process #017-289)*

(12) *Crushed Ore Bin FFDC 4 (Process #017-290)*

(13) *Crushed Ore Transfers FFDC (Process #017-291)*

(14) *Roll Crusher FFDC (Process #017-292)*

(15) *Wet Screen Feed FFDC (Process #017-294)*

b. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize water sprays on the transfer from the Wet Screen Feed Bin to Wet Screens 1/2 (Process #017-327) to saturate the process material.

[A.A.C. R18-2-306.A.2]

5. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition IV.B.

[A.A.C. R18-2-306.A.3.c]

6. Performance Testing Requirements

a. Initial Performance Test

(1) The Permittee shall conduct initial performance tests as specified in Conditions IV.B.6.a(2) through IV.B.6.a(6) below on the following control devices:

[40 CFR 60.8, 60.11]

(a) Crushed Ore Transfers FFDC (when operating under AOS3) (Process #017-291)

(b) Roll Crusher FFDC (when operating under AOS3) (Process #017-292)

(2) For the purpose of demonstrating initial compliance with Condition IV.B.2.a above, the Permittee shall conduct a performance test and submit to the Director a written report of the results of the test as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.385(a)]

(3) For the purpose of demonstrating initial compliance with Condition IV.B.2.b(1) above, opacity observations shall be conducted concurrently with the performance tests required in Condition IV.B.6.a(2) above except as allowed in 40 CFR 60.11(e)(1). The minimum total time of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results along with the results of the initial performance test required by Condition IV.B.6.a(2) above.

[40 CFR 60.11]

(4) For the purpose of demonstrating initial compliance with Condition IV.B.2.b(2) above, opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. The minimum total time of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.11]

(5) EPA Reference Method 5 shall be used to determine particulate matter concentration from stack emissions Method 5. The sample volume for each run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121°C (250°F)) in order to prevent water condensation on the filter.

[40 CFR 60.386(b)(1)]

(6) EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only

when emissions are clearly identified as emanating solely from the affected facility being observed.

[40 CFR 60.386(b)(2)]

b. To demonstrate continued compliance with the emission limitation in Condition IV.B.2.a, the Permittee shall conduct the performance tests required by Condition IV.C.3.b below.

[A.A.C. R18-2-306.A.3.c and -312]

7. Permit Shield

Compliance with the requirements of Condition IV.B shall be deemed compliance with 40 CFR 60.8, 60.11, 60.382(a)(1), 60.382(a)(2), 60.382(b), 60.385(a), 60.386(b)(1) and 60.386(b)(2).

[A.A.C. R18-2-325]

C. Voluntary Emission Limitations

1. Applicability

The facilities subject to the requirements of this Condition IV.C are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

The Permittee shall not allow the emissions of PM and PM_{10} from the processes identified in the table below to exceed the corresponding emission limits, as measured at the respective pollution control device exhaust.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

Process #	Pollution Control Device	Emission Limit (gr/dscf)	
		PM	PM_{10}
017-318	*Secondary Screen Feed Bin FFDC*	*0.004*	*0.004*
017-280	*Secondary Screening FFDC 1*	*0.004*	*0.004*
017-281	*Secondary Screening FFDC 2*	*0.004*	*0.004*
017-319	*Secondary Crusher Feed Bin FFDC*	*0.004*	*0.004*
017-283	*Secondary Crushing FFDC 1*	*0.004*	*0.004*
017-284	*Secondary Crushing FFDC 2*	*0.004*	*0.004*

Process #	Pollution Control Device	Emission Limit (gr/dscf)	
		PM	PM_{10}
017-285	*Crushed Ore A/B Conveyor Transfer Point FFDC*	*0.004*	*0.004*
017-286	*Crushed Ore B/Tripper Conveyor Transfer Point FFDC*	*0.004*	*0.004*
017-287	*Crushed Ore Bin FFDC 1*	*0.004*	*0.004*
017-288	*Crushed Ore Bin FFDC 2*	*0.004*	*0.004*
017-289	*Crushed Ore Bin FFDC 3*	*0.004*	*0.004*
017-290	*Crushed Ore Bin FFDC 4*	*0.004*	*0.004*
017-291	*Crushed Ore Transfers FFDC*	*0.004*	*0.004*
017-292	*Roll Crusher FFDC*	*0.004*	*0.004*
017-294	*Wet Screen Feed FFDC*	*0.004*	*0.004*

3. Performance Testing Requirements

a. The Permittee shall within 60 days of achieving the maximum production rate, but no later than 180 days of the startup, conduct performance tests for PM and PM_{10} on the stacks of the following pollution control devices to demonstrate compliance with the emission limits in Condition IV.C.2.

[A.A.C. R18-2-306.A.3.c and -312]

(1) Crushed Ore Transfers FFDC (when operating under AOS3) (Process #017-291)

(2) Roll Crusher FFDC (when operating under AOS3) (Process #017-292)

b. For the following processes that are operational and have been tested previously, the Permittee shall conduct performance tests for PM and PM_{10} on the stacks of the associated pollution control devices a minimum of once during the permit term to demonstrate compliance with the emission limits in Condition IV.C.2 above.

[A.A.C. R18-2-306.A.3.c and -312]

(1) Secondary Screen Feed Bin FFDC (Process #017-318)

(2) Secondary Screening FFDC 1 (Process #017-280)

(3) Secondary Screening FFDC 2 (Process #017-281)

(4) Secondary Crusher Feed Bin FFDC (Process #017-319)

(5) Secondary Crushing FFDC 1 (Process #017-283)

(6) Secondary Crushing FFDC 2 (Process #017-284)

(7) Crushed Ore A/B Conveyor Transfer Point FFDC (Process #017-285)

(8) Crushed Ore B/Tripper Conveyor Transfer Point FFDC (Process #017-286)

(9) Crushed Ore Bin FFDC 1 (Process #017-287)

(10) Crushed Ore Bin FFDC 2 (Process #017-288)

(11) Crushed Ore Bin FFDC 3 (Process #017-289)

(12) Crushed Ore Bin FFDC 4 (Process #017-290)

(13) Crushed Ore Transfers FFDC (Process #017-291)

(14) Roll Crusher FFDC (Process #017-292)

(15) Wet Screen Feed FFDC (Process #017-294)

c. If the results of any performance test required by Conditions IV.C.3.a or IV.C.3.b above is less than or equal to 70% of the applicable emissions limits in Condition IV.C.2 above, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

d. If the result of any performance test required by Conditions IV.C.3.a or IV.C.3.b is greater than 70% of the applicable emission limits in Condition IV.C.2, the Permittee shall conduct subsequent performance test(s) for PM and PM_{10} on the stack of that pollution control device on an annual basis (between 11 and 13 months from the date of the previous test).

[A.A.C. R18-2-306.A.3.c and -312]

e. If the result of any subsequent performance test required by Condition IV.C.3.d is below 70% of the applicable emission limits in Condition IV.C.2, no further testing is required for that control device during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

f. Test Methods

EPA Reference Method 5 in 40 CFR 60, Appendix A and (if necessary) EPA Reference Method 202 specified in 40 CFR 51, Appendix M shall be used to determine emissions of PM. All particulate matter measured by the above reference method can be considered to have an aerodynamic

diameter less than 10 microns or EPA Reference Method 201 or 201A and (if necessary) Method 202 specified in 40 CFR 51, Appendix M can be used to determine emissions of PM_{10}.

[A.A.C. R18-2-306.A.3.c and -312]

D. Alternate Operating Scenario

The facilities subject to the requirements of this Condition IV.D are identified under the AOS3 section (AOS3: Metcalf Concentrator Tertiary Crushing Operations) of the Equipment List in Attachment "E."

1. When operating under AOS3, the Permittee may operate HPGR Crushers (and associated equipment) for tertiary crushing purposes in the Metcalf Concentrator.

[A.A.C. R18-2-306.A.11]

2. When operating under AOS3, the Permittee shall not operate the Roll Crusher (and associated equipment) for tertiary crushing purposes in the Metcalf Concentrator.

[A.A.C. R18-2-306.A.11]

3. The AOS3 operations shall comply with all the requirements in Conditions IV.B and IV.C, as applicable.

[A.A.C. R18-2-306.A.11]

4. Air Pollution Control Requirements

At all times when operating under AOS3, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and *operate the following fabric filter dust collectors in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

a. *Crushed Ore Transfers FFDC (AOS3) (Process #017-291)*

b. *Roll Crusher FFDC (AOS3) (Process #017-292)*

5. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall, contemporaneously with making the change from one operating scenario to another, record in a log a record of the scenario under which it is operating.

[A.A.C. R18-2-306.A.11]

E. Facilities Subject to the Standards of Performance for Unclassified Sources Under A.A.C. R18-2-730

1. Applicability

The facilities subject to the requirements of this Condition IV.E are identified in the last column of the Equipment List in Attachment "E."

2. Operational Limitations

a. The Permittee shall not cause, allow, or permit the emission of gaseous or odorous materials from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.
[A.A.C. R18-2-730.D]

b. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.
[A.A.C. R18-2-730.F]

c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]

d. The Permittee shall not allow H_2S to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 0.03 parts per million by volume for any averaging period of 30 minutes or more.
[A.A.C. R18-2-730.H]

3. Permit Shield

Compliance with the requirements of Condition IV.E shall be deemed compliance with A.A.C. R18-2-730.D, -730.F, -730.G, and -730.H.
[A.A.C. R18-2-325]

V. COMBINED MOLYBDENUM FLOTATION, COPPER AND MOLYBDENUM CONCENTRATE PROCESSING OPERATIONS

This Section applies to Combined Molybdenum Flotation and Molybdenum Concentrate Processing Operations (Operation 018), Copper Concentrate Processing Operations (Operation 006), and AOS4

A. Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721

1. Applicability

The facilities subject to the requirements of this Condition V.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-721.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E= 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E= 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition V.A.2.a(1)(a) above.

(2) For purposes of Condition V.A.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-721.D]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition V.A.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

b. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition V.A.

[A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with the requirements of Condition V.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -721.B, -721.D, and -721.F.

[A.A.C. R18-2-325]

B. Facilities Subject to the NSPS Requirements for Metallic Mineral Processing Plant Affected Facilities Under 40 CFR 60 Subpart LL

1. Applicability

The facilities subject to the requirements of this Condition V.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10% opacity.

[40 CFR 60.382(b) A.A.C. R18-2-331.A.3.f]
[Material permit conditions are indicated by underline and italics]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

4. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition V.B.

[A.A.C. R18-2-306.A.3.c]

5. Performance Testing Requirements

a. For the purpose of demonstrating initial compliance with Condition V.B.2 above, opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. The minimum total time of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.11]

b. EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed.

[40 CFR 60.386(b)(2)]

6. Permit Shield

Compliance with the requirements of Condition V.B shall be deemed compliance with 40 CFR 60.8, 60.11, 60.382(b), and 60.386(b)(2).

[A.A.C. R18-2-325]

C. Facilities Subject to the Standards of Performance for Unclassified Sources Under A.A.C. R18-2-730

1. Applicability

The facilities subject to the requirements of this Condition V.C are identified in the last column of the Equipment List in Attachment "E."

2. Operational Limitations

a. The Permittee shall not cause, allow, or permit the emission of gaseous or odorous materials from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730.D]

b. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

[A.A.C. R18-2-730.F]

c. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

d. The Permittee shall not allow H_2S to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 0.03 parts per million by volume for any averaging period of 30 minutes or more.

[A.A.C. R18-2-730.H]

3. Permit Shield

Compliance with the requirements of Condition V.C shall be deemed compliance with A.A.C. R18-2-730.D, -730.F, -730.G, and -730.H.

[A.A.C. R18-2-325]

D. Alternate Operating Scenario

The facilities subject to the requirements of this Condition V.D are identified under the AOS4 section (AOS4: Combined Molybdenum Flotation with CO2 Injection) of the Equipment List in Attachment "E."

1. When operating under AOS4, the Permittee may operate the Combined Molybdenum Flotation Operations (Process #018-336) with injection of CO_2 into the Molybdenum Rougher and Cleaner Flotation Cells.

[A.A.C. R18-2-306.A.11]

2. Air Pollution Prevention and Control Requirements

At all times when operating under AOS4, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and *operate the H_2S Scrubber System to minimize particulate matter and hydrogen sulfide emissions from Combined Molybdenum Flotation and (when necessary) NaHS Storage Tanks 1 and 2 (Process #018-336-AOS4) to comply with the applicable emission limitations and standards of Condition V.C.2.d above.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

3. The AOS4 operations shall comply with all the requirements in Conditions V.A and V.C, as applicable.

[A.A.C. R18-2-306.A.11]

4. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall, contemporaneously with making the change from one operating scenario to another, record in a log a record of the scenario under which it is operating.

[A.A.C. R18-2-306.A.11]

b. The Permittee shall maintain records of the date and time of operation of AOS4 and the H_2S Scrubber System (Process #018-336 – AOS4).

[A.A.C. R18-2-306.A.3.c]

VI. LIME SLAKING PLANTS

A. Applicability

Section VI applies to operations associated with the Lime Slaking Plants (Operation 004) as identified in the last column of the Equipment List in Attachment "E."

B. Emission Limitations and Standards

1. Particulate Matter

a. The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-730.A.1]

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(2) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition VI.B.1.a(1) above.

b. For purposes of Condition VI.B.1.a above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

2. Opacity

a. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

b. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition VI.B.2.a above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

C. Operational Limitations

Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

D. Air Pollution Prevention and Control Requirements

1. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate dust filters on the following equipment to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition VI.B.2 above.

[A.A.C. R18-2-306.A.2]

   a. Lime Silo 1 (Process #004-231)

   b. Lime Silo 2 (Process #004-232)

2. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate a bin vent filter on the Metcalf Lime Silo (Process #004-275) to minimize particulate matter emissions and comply with applicable emission limitations and standards of Conditions VI.B above.

[A.A.C. R18-2-306.A.2]

3. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate water spray mist control systems on the following equipment to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition VI.B above.

[A.A.C. R18-2-306.A.2]

   a. Lime Slaker 1 (Process #004-233)

   b. Lime Slaker 2 (Process #004-234)

4. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the Metcalf Lime Slaker Wet Scrubber on the Metcalf Lime Slaker (Process #004-276) to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition VI.B above*.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

E. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Section VI.

[A.A.C. R18-2-306.A.3.c]

F. Permit Shield

Compliance with the requirements of Section VI shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A.1, -730.B, and -730.G.

[A.A.C. R18-2-325]

VII. SOLUTION EXTRACTION/ELECTROWINNING OPERATIONS

A. Applicability

Section VII applies to operations associated with Solution Extraction/Electrowinning (Operation 009) as identified in the last column of the Equipment List in Attachment "E."

B. Emission Limitations and Standards

1. Particulate Matter

a. The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-730.A.1]

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(2) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition VII.B.1.a(1) above.

b. For purposes of Condition VII.B.1.a above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

2. Opacity

a. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

b. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition VII.B.2.a above, the exceedance shall not constitute a violation of the applicable opacity limit.
[A.A.C. R18-2-702.C]

C. Operational Limitations

1. The Permittee shall not cause, allow, or permit the emission of gaseous or odorous materials from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.
[A.A.C. R18-2-730.D]

2. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.
[A.A.C. R18-2-730.F]

3. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]

D. Air Pollution Prevention and Control Requirements

1. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize covers on the mixer-settler units associated with the following operations to comply with the applicable operational limitations of Condition VII.C above.
[A.A.C. R18-2-306.A.2]

   a. Central SX (Process #009-117)

   b. Metcalf SX (Process #009-118)

   c. Modoc SX (Process #009-119)

   d. Stargo SX (Process #009-349)

2. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize covers on the mixer units associated with the Modoc Test Facility SX (Process #009-422) to comply with the applicable operational limitations of Condition VII.C above.
[A.A.C. R18-2-306.A.2]

3. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize one or more of the following methods on the

cells associated with Central EW (Process #009-121), Southside EW (Process #009-122), Stargo EW (Process #009-221), and Modoc Test Facility EW (Process #009-423) to comply with the applicable operational limitations of Condition VII.C above.

[A.A.C. R18-2-306.A.2]

a. Foam;

b. Blankets;

c. Surfactants;

d. Brushes;

e. Thermal retention balls; or

f. Other effective means as approved by the Director.

E. Monitoring, Recordkeeping, and Reporting Requirements

1. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Section VII.

[A.A.C. R18-2-306.A.3.c]

2. The Permittee shall maintain a record of the control measures used in the SX/EW systems.

[A.A.C. R18-2-306.A.3.c]

F. Permit Shield

Compliance with the requirements of Section VII shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A.1, -730.B, -730.D, -730.F, and -730.G.

[A.A.C. R18-2-325]

VIII. CONCRETE BATCH PLANT

A. Applicability

Section VIII applies to operations associated with the Concrete Batch Plant (Operation 010) as identified in the last column of the Equipment List in Attachment "E."

B. Emission Limitations and Standards

Opacity

1. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

2. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition VIII.B.1 above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

C. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Section VIII.

[A.A.C. R18-2-306.A.3.c]

D. Air Pollution Prevention and Control Requirements

1. The Permittee shall control fugitive dust emissions from concrete batch plants in accordance with A.A.C. R18-2-604 through A.A.C. R18-2-607 (see Section V of Attachment "B").

[A.A.C. R18-2-723]

2. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate bin vent filters on the following equipment to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Condition VIII.B above.

a. Fly Ash Silo (Process #010-146)

b. Cement Silo (Process #010-147)

[A.A.C. R18-2-306.A.2]

E. Permit Shield

Compliance with the requirements of Section VIII shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, and -723.

[A.A.C. R18-2-325]

IX. GRIZZLY OPERATIONS

This Section applies to Grizzly Operations (Operation 013).

A. Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721

1. Applicability

The facilities subject to the requirements of this Condition IX.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-721.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E= 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E= 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition IX.A.2.a(1)(a) above.

(2) For purposes of Condition IX.A.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-721.D]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition IX.A.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

b. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition IX.A.

[A.A.C. R18-2-306.A.3.c]

4. Permit Shield

Compliance with the requirements of Condition IX.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -721.B, -721.D, and -721.F.

[A.A.C. R18-2-325]

B. Facilities Subject to the Standards of Performance for Existing Gravel or Crushed Stone Processing Plants Under A.A.C. R18-2-722

1. Applicability

The facilities subject to the requirements of this Condition IX.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-722.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition IX.B.2.a(1)(a) above.

[A.A.C. R18-2-722.B.2]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition IX.B.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Air Pollution Prevention and Control Requirements

a. The Permittee shall utilize spray bar pollution controls in accordance with "EPA Control of Air Emissions From Process Operations In The Rock Crushing Industry" (EPA 340/1-79-002), "Wet Suppression System" (pages 15-34, amended as of January 1979 (and no future amendments or editions)), with placement of spray bars and nozzles as required by the Director to minimize air pollution.

[A.A.C. R18-2-722.D]

b. The Permittee shall control fugitive emissions from gravel or crushed stone processing plants in accordance with A.A.C. R18-2-604 through A.A.C. R18-2-607 (see Section V of Attachment "B").

[A.A.C. R18-2-722.E]

4. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall install, calibrate,* maintain, and operate *monitoring devices which can be used to determine daily the process weight of gravel or crushed stone produced.* The weighing devices shall have an accuracy of ±5% over their operating range.

[A.A.C. R18-2-722.F and -331.A.3.c]
[Material permit conditions are indicated by underline and italics]

b. The Permittee shall maintain a record of daily production rates of gravel or crushed stone produced.

[A.A.C. R18-2-722.G]

c. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition IX.B.

[A.A.C. R18-2-306.A.3.c]

5. Permit Shield

Compliance with the requirements of Condition IX.B shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -722.B, -722.D, -722.E, -722.F, and -722.G.
[A.A.C. R18-2-325]

X. CONCENTRATE LEACH PLANT

A. Applicability

Section X applies to operations associated with the Concentrate Leach Plant (Operation 014) as identified in the last column of the Equipment List in Attachment "E."

B. Emission Limitations and Standards

1. Particulate Matter

a. The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-730.A.1]

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(2) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition X.B.1.a(1) above.

b. For purposes of Condition X.B.1.a above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

c. *The Permittee shall not allow the emissions of PM or PM_{10} from Process #014-239 to exceed 0.75 lb/hr as measured at the PLV 2-Stage Scrubber exhaust*.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

2. Opacity

a. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

b. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition X.B.2.a above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Volatile Organic Compounds (VOC)

The Permittee shall not allow the emissions VOC from Process #014-239 to exceed 5.82 lb/hr as measured at the PLV 2-Stage Scrubber exhaust.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

C. Operational Limitations

1. The Permittee shall not cause, allow, or permit the emission of gaseous or odorous materials from equipment, operations or premises under its control in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730.D]

2. Materials including solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

[A.A.C. R18-2-730.F]

3. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

D. Air Pollution Prevention and Control Requirements

1. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate mist eliminators on the following equipment to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Conditions X.B.1 and X.B.2 above.

[A.A.C. R18-2-306.A.2]

a. PLV Cooling Tower (Process #014-240)

b. Oxygen Plant Cooling Tower (Process #014-241)

2. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, operate bin vent filters on the following equipment to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Conditions X.B.1 and X.B.2 above.

[A.A.C. R18-2-306.A.2]

a. Flocculant Bin (Process #014-348) (Vented inside)

b. Lime Silo (Process #014-254)

c. Supersack Unloader (Process #014-253)

3. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable*, maintain and *operate the PLV 2-Stage Scrubber to minimize particulate matter and volatile organic compound emissions from the Pressure Leach Vessel (Process #014-239) and comply with the applicable emission limitations and standards of Condition X.B.1.c and Condition X.B.3 above.*

[A.A.C. R18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

E. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Section X.

[A.A.C. R18-2-306.A.3.c]

F. Performance Testing Requirements

1. The Permittee shall conduct performance tests for PM, PM_{10}, and VOC on the PLV 2-Stage Scrubber (Process #014-239) a minimum of once during the permit term to demonstrate compliance with the emission limits in Conditions X.B.1.c and X.B.3 above.

[A.A.C. R18-2-306.A.3.c and -312]

2. If the results of any performance test required by Condition X.F.1 above is less than or equal to 70% of the applicable emission limits in Conditions X.B.1.c and X.B.3 above, no further testing is required for the PLV 2-Stage Scrubber (Process #014-239) during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

3. If the result of any performance test required by Condition X.F.1 above is greater than 70% of the applicable emission limits in Conditions X.B.1.c and X.B.3 above, the Permittee shall conduct subsequent performance test(s) for PM, PM_{10}, and/or VOC on the stack of the PLV 2-Stage Scrubber (Process #014-239) on an annual basis (between 11 and 13 months from the date of the previous test).

[A.A.C. R18-2-306.A.3.c and -312]

4. If the result of any subsequent performance test required by Condition X.F.3 above is below 70% of the applicable emission limits in Conditions X.B.1.c and X.B.3 above, no further testing is required for the PLV 2-Stage Scrubber (Process #014-239) during the permit term.

[A.A.C. R18-2-306.A.3.c and -312]

5. EPA Reference Method 5 in 40 CFR 60, Appendix A and (if necessary) EPA Reference Method 202 specified in 40 CFR 51, Appendix M shall be used to determine emissions of PM. All particulate matter measured by the above reference method can be considered to have an aerodynamic diameter less than 10 microns or EPA Reference Method 201 or 201A and (if necessary) Method 202 specified in 40 CFR 51, Appendix M can be used to determine emissions of PM_{10}.

[A.A.C. R18-2-306.A.3.c and -312]

6. EPA Reference Method 25A in 40 CFR 60, Appendix A shall be used to determine emissions of VOC.

[A.A.C. R18-2-306.A.3.c and -312]

G. Permit Shield

Compliance with the requirements of Section X shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A.1, -730.B, -730.D, -730.F, and -730.G.

[A.A.C. R18-2-325]

XI. CRUSHING AND SCREENING PLANT

This Section applies to operations associated with the Crushing and Screening Plant (Operation 020).

A. Facilities Subject to the Standards of Performance for Existing Gravel or Crushed Stone Processing Plants Under A.A.C. R18-2-722

1. Applicability

The facilities subject to the requirements of this Condition XI.A are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere except as fugitive emissions in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-722.B]

(a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour.

(b) For process sources having a process weight greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition XI.A.2.a(1)(a) above.

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition XI.A.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

3. Air Pollution Prevention and Control Requirements

a. The Permittee shall utilize spray bar pollution controls in accordance with "EPA Control of Air Emissions From Process Operations In The Rock Crushing Industry" (EPA 340/1-79-002), "Wet Suppression System" (pages 15-34, amended as of January 1979 (and no future amendments or editions)), with placement of spray bars and nozzles as required by the Director to minimize air pollution.

[A.A.C. R18-2-722.D]

b. The Permittee shall control fugitive emissions from gravel or crushed stone processing plants in accordance with A.A.C. R18-2-604 through A.A.C. R18-2-607 (see Section V of Attachment "B").

[A.A.C. R18-2-722.E]

c. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize wet suppression associated with the following fugitive emission units of Process #020-019 to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition XI.A.2. Wet suppression options include water sprays, surfactant use, water jets, foggers, inherent moisture content, or other equivalent control methods.

[A.A.C. R18-2-306.A.2]

(1) Conveyor Belt 3 to 0.75 – 2.0-inch Product Rock Storage Pile

(2) Conveyor Belt 2 to < 0.75-inch Product Rock Storage Pile

4. Monitoring, Recordkeeping, and Reporting Requirements

a. *The Permittee shall install, calibrate,* maintain, and operate *monitoring devices which can be used to determine daily the process weight of gravel or crushed stone produced.* The weighing devices shall have an accuracy of ± 5% over their operating range.

[A.A.C. R18-2-722.F and -331.A.3.c]
[Material permit conditions are indicated by underline and italics]]

b. The Permittee shall maintain a record of daily production rates of gravel or crushed stone produced.

[A.A.C. R18-2-722.G]

c. The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition XI.A.

[A.A.C. R18-2-306.A.3.c]

5. Permit Shield

Compliance with the requirements of Condition XI.A shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -722.B, -722.D, -722.E, -722.F, and -722.G.

[A.A.C. R18-2-325]

B. Facilities Subject to the NSPS Requirements for Nonmetallic Mineral Processing Plants Under 40 CFR 60 Subpart OOO

1. Applicability

The facilities subject to the requirements of this Condition XI.B are identified in the last column of the Equipment List in Attachment "E."

2. Emission Limitations and Standards

a. *Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from crushers at which a capture system is not used any fugitive emissions that exhibit greater than 15% opacity*.

[A.A.C. R18-2-331.A.3.f and 40 CFR 60.672(b) including Table 3]
[Material permit conditions are indicated by underline and italics]

b. *Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility, except as provide in Condition XI.B.2.a above, any fugitive emissions that exhibit greater than 10% opacity*.

[A.A.C. R18-2-331.A.3.f and 40 CFR 60.672(b) including Table 3]
[Material permit conditions are indicated by underline and italics]

c. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of Conditions XI.B.2.a and XI.B.2.b above.

[40 CFR 60.672(d)]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility including

associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

4. Air Pollution Control Requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, utilize wet suppression on the following non-fugitive emission units of Process #020-019 to minimize particulate matter emissions and comply with applicable emission limitations and standards of Condition XI.B.2 above. Wet suppression options include water sprays, surfactant use, water jets, foggers, inherent moisture content, or other equivalent control methods.

[A.A.C. R 18-2-306.A.2 and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

a. *Primary Jaw Crusher to Conveyor Belt 1*

b. *Conveyor Belt 1 to Triple Deck Screen and Triple Deck Screening*

c. *Triple Deck Screen Oversize to Conveyor Belt 4*

d. *Conveyor Belt 4 to Conveyor Belt 5*

e. *Secondary Cone Crusher to Conveyor Belt 6*

f. *Conveyor Belt 6 to Conveyor Belt 1*

5. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Condition XI.B.

[A.A.C. R18-2-306.A.3.c]

6. Permit Shield

Compliance with the requirements of Condition XI.B shall be deemed compliance with 40 CFR 60.672(b) and 60.672(d).

[A.A.C. R18-2-325]

XII. PRILL BINS

A. Applicability

Section XII applies to operations associated with the Prill Bins (Operation 022) as identified in the last column of the Equipment List in Attachment "E."

B. Emission Limitations and Standards

1. Particulate Matter

a. The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-730.A.1]

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(2) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition XII.B.1.a(1) above.

b. For purposes of Condition XII.B.1.a above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

2. Opacity

a. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

b. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition XII.B.2.a above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

C. Operational Limitations

Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

D. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a bi-weekly basis for all emission units subject to Section XII.

[A.A.C. R18-2-306.A.3.c]

E. Permit Shield

Compliance with the requirements of Section XII shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A.1, -730.B, and -730.G.

[A.A.C. R18-2-325]

ATTACHMENT "D": METCALF COMBINED CYCLE POWER PLANT (OPERATION 005)

I. TURBINES AND BOILERS

This Section applies to Natural Gas Boiler 1 (Process #005-109), Natural Gas Boiler 2 (Process #005-111), Natural Gas Turbine 1 (Process #005-108), and Natural Gas Turbine 2 (Process #005-110) in the Metcalf Combined Cycle Power Plant as identified in the last column of the Equipment List in Attachment "E."

A. Voluntary Requirements

1. Fuel Limitations

a. The Permittee shall burn only natural gas in Natural Gas Turbine 1 (Process #005-108), Natural Gas Turbine 2 (Process #005-110), Natural Gas Boiler 1 (Process #005-109), and Natural Gas Boiler 2 (Process #005-111).

[A.A.C. R 18-2-306.A.2]

b. *The Permittee shall not combust more than 871,620 MMBtu per year of natural gas total in Natural Gas Turbine 1 (Process #005-108) and Natural Gas Turbine 2 (Process #005-110)*.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

c. *The Permittee shall not combust more than 153,000 MMBtu per year of natural gas total in Natural Gas Boiler 1 (Process #005-109) and Natural Gas Boiler 2 (Process #005-111)*.

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

2. Voluntary Emission Limitations

a. *When operating in stand-alone mode, the Permittee shall not allow the emissions of NOx and CO from Natural Gas Turbine 1 (Process #005-108), Natural Gas Turbine 2 (Process #005-110), Natural Gas Boiler 1 (Process #005-109), and Natural Gas Boiler 2 (Process #005-111) to exceed the limits below*:

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

Equipment	***Emission Limits***	
	NOx	***CO***
Natural Gas Turbine 1 (Process #005-108)	*0.32 lb/MMBtu*	*0.082 lb/MMBtu*
Natural Gas Turbine 2 (Process #005-110)	*0.32 lb/MMBtu*	*0.082 lb/MMBtu*
Natural Gas Boiler 1 (Process #005-109)	*0.27 lb/MMBtu*	*0.08 lb/MMBtu*

Equipment	***Emission Limits***	
	NOx	***CO***
Natural Gas Boiler 2 (Process #005-111)	*0.27 lb/MMBtu*	*0.08 lb/MMBtu*

b. *When operating Natural Gas Boiler 1 (Process #005-109) in combined cycle mode with Natural Gas Turbine 1 (Process #005-108) or Natural Gas Boiler 2 (Process #005-111) in combined cycle mode with Natural Gas Turbine 2 (Process #005-110), the Permittee shall not allow*:

[A.A.C. R 18-2-306.01.A and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]

(1) *NOx to exceed 0.32 lb/MMBtu*

(2) *CO to exceed 0.082 lb/MMBtu*

3. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall keep monthly records of the total fuel consumed in Natural Gas Turbine 1 (Process #005-108) and Natural Gas Turbine 2 (Process #005-110) in units of MMBtu. At the end of the month, the Permittee shall compute and record the twelve-month rolling total of fuel consumed (in units of MMBtu).

[A.A.C. R18-2-306.A.3.c]

b. The Permittee shall keep monthly records of the total fuel consumed in Natural Gas Boiler 1 (Process #005-109) and Natural Gas Boiler 2 (Process #005-111) in units of MMBtu. At the end of the month, the Permittee shall compute and record the twelve-month rolling total of fuel consumed (in units of MMBtu).

[A.A.C. R18-2-306.A.3.c]

4. Performance Testing Requirements

a. Beginning from the time of permit issuance, the Permittee shall conduct a performance test on Natural Gas Turbine 1 (Process #005-108) and Natural Gas Turbine 2 (Process #005-110) for every 1,440 operating hours on each turbine when operating in stand-alone mode. If the turbines do not reach 1,440 operating hours within the permit term, the Permittee shall conduct the performance test once during the permit term to demonstrate compliance with the NO_X and CO emission limits in Condition I.A.2.a above. The performance test shall be conducted on the applicable turbine within 180 days of reaching 1,400 hours and each multiple thereof.

[A.A.C. R18-2-306.A.3.c and -312]

b. Within 90 days of restart of Natural Gas Boiler 1 (Process #005-109) or Natural Gas Boiler 2 (Process #005-111) when operating in stand-alone mode, the Permittee shall conduct performance tests to demonstrate compliance with the emission limits in Condition I.A.2.a above.

[A.A.C. R18-2-306.A.3.c and -312]

c. Within 90 days of restart of Natural Gas Boiler 1 (Process #005-109) operating in combined cycle mode with Natural Gas Turbine 1 (Process #005-108), or Natural Gas Boiler 2 (Process #005-111) operating in combined cycle mode with Natural Gas Turbine 2 (Process #005-110), the Permittee shall conduct performance tests to demonstrate compliance with the emission limits in Condition I.A.2.b above.

[A.A.C. R18-2-306.A.3.c and -312]

d. Test Methods

(1) EPA Reference Method 7E in 40 CFR 60, Appendix A shall be used to determine emissions of NO_X.

[A.A.C. R18-2-306.A.3.c and -312]

(2) EPA Reference Method 10 in 40 CFR 60, Appendix A shall be used to determine emissions of CO.

[A.A.C. R18-2-306.A.3.c and -312]

B. Standards of Performance for Existing Fossil-fuel Fired Steam Generators Under A.A.C. R18-2-703 Applicable to Natural Gas Boiler 1 (Process #005-109) and Natural Gas Boiler 2 (Process #005-111)

1. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the emission of particulate matter in excess of the amounts calculated by one of the following equations:

(a) [A.A.C. R18-2-703.C]For equipment having a heat input rate of 4,200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:

$E = 1.02\ Q^{0.769}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

Q= the heat input in million Btu per hour.

(b) For equipment having a heat input rate greater than 4,200 million Btu per hour, the maximum allowable emissions shall be determined by the following equation:

$E = 17.0\ Q^{0.432}$

Where "E" and "Q" have the same meaning as in Condition I.B.1.a(1)(a) above.

(2) For purposes of Condition I.B.1.a(1) above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet.

[A.A.C. R18-2-703.B]

b. Opacity

(1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

(2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition I.B.1.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

2. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall keep records of fuel supplier specifications. The records shall include the name of fuel supplier and the higher heating value of the fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with the requirements of Condition I.B shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -703.B, -703.C, and -703.H.

[A.A.C R18-2-325]

C. Standards of Performance for Existing Stationary Rotating Machinery Under A.A.C. R18-2-719 Applicable to Natural Gas Turbine 1 (Process #005-108) and Natural Gas Turbine 2 (Process #005-110)

1. Emission Limitations and Standards

a. Particulate Matter

(1) The Permittee shall not cause, allow, or permit the emission of particulate matter, caused by combustion of fuel, from any stationary rotating machinery in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-719.C]

(a) For equipment having a heat input rate of 4,200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 1.02\ Q^{0.769}$$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

Q= the heat input in million Btu per hour.

(b) For equipment having a heat input rate greater than 4,200 million Btu per hour, the maximum allowable emissions shall be determined by the following equation:

$$E = 17.0\ Q^{0.432}$$

Where "E" and "Q" have the same meaning as in Condition I.C.1.a(1)(a) above.

(2) For purposes of Condition I.C.1.a(1) above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-719.B]

b. Opacity

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C. R18-2-719.E]

2. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record daily the sulfur content and lower heating value of the fuel being fired. This may be accomplished by maintaining on record a copy of that part of the contract with the vendor that specifies the sulfur content and lower heating value of the fuel.

[A.A.C. R18-2-719.I]

b. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired exceeds 0.8%.

[A.A.C. R18-2-719.J]

3. Permit Shield

Compliance with the requirements of Condition I.C shall be deemed compliance with A.A.C. R18-2-719.B, -719.C, -719.E, -719.F, -719.H, -719.I, and -719.J.

[A.A.C R18-2-325]

II. COOLING TOWERS

A. Applicability

Section II applies to Cooling Tower 1 (Process #005-260) and Cooling Tower 2 (Process #005-261) in the Metcalf Combined Cycle Power Plant as identified in the last column of the Equipment List in Attachment "E."

B. Emission Limitations and Standards

1. Particulate Matter

a. The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour in total quantities in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-730.A.1]

(1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$E = 4.10\ P^{0.67}$

Where:

E= the maximum allowable particulate emissions rate in pounds-mass per hour.

P= the process weight rate in tons-mass per hour.

(2) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$E = 55.0\ P^{0.11} - 40$

Where "E" and "P" are defined as indicated in Condition II.B.1.a(1) above.

b. For purposes of Condition II.B.1.a above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

[A.A.C. R18-2-730.B]

2. Opacity

a. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

[A.A.C. R18-2-702.B.3]

b. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition II.B.2.a above, the exceedance shall not constitute a violation of the applicable opacity limit.

[A.A.C. R18-2-702.C]

C. Operational Limitations

Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

D. Air Pollution Prevention and Control Requirements

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate mist eliminators on Cooling Tower 1 (Process #005-260) and Cooling Tower 2 (Process #005-261) to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Condition II.B above.

[A.A.C. R18-2-306.A.2]

E. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a quarterly basis for all emission units subject to Section II.

[A.A.C. R18-2-306.A.3.c]

F. Permit Shield

Compliance with the requirements of Section II shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A.1, -730.B, and -730.G.

[A.A.C R18-2-325]

III. BLACK START ENGINES

This Section applies to Diesel Black Start Turbine Engine 1 (Process #005-432) and Diesel Black Start Turbine Engine 2 (Process #005-433) in the Metcalf Combined Cycle Power Plant as identified in the last column of the Equipment List of Attachment "E."

A. Standards of Performance for Existing Stationary Rotating Machinery Requirements Under A.A.C. R18-2-719

1. Fuel Limitations

a. The Permittee shall fire only diesel fuel in the diesel engines.

[A.A.C. R18-2-306.A.2]

b. The use of high sulfur oil in the existing stationary rotating machinery is prohibited.

[A.A.C. R18-2-719.H]

2. Particulate Matter and Opacity

a. Emission Limitations and Standards

(1) The Permittee shall not cause, allow, or permit the emission of particulate matter, caused by combustion of fuel, from any

stationary rotating machinery in excess of the amounts calculated by one of the following equations:

[A.A.C. R18-2-719.C]

(a) For equipment having a heat input rate of 4,200 million Btu per hour or less, the maximum allowable emissions shall be determined by the following equation:

$E = 1.02\ Q^{0.769}$

Where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour

Q = the heat input in million Btu per hour

(b) For equipment having a heat input rate greater than 4,200 million Btu per hour, the maximum allowable emissions shall be determined by the following equation:

$E = 17.0*Q^{0.432}$

Where:

Where "E" and "Q" have the same meaning as in Condition III.A.2.a(1)(a) above.

(2) For the purposes of the calculations required in Condition III.A.2.a(1) above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units at a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-719.B]

(3) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C. R18-2-719.E]

b. Monitoring, Recordkeeping and Reporting Requirements

(1) The Permittee shall conduct the periodic opacity monitoring method specified in Condition I.C of Attachment "B" on a quarterly basis for all emission units subject to Condition III.A.

[A.A.C. R18-2-306.A.3.c]

(2) The Permittee shall record daily the lower heating value of the fuel being fired in the machine. This may be accomplished by

maintaining on record a copy of that part of the contract with the vendor that specifies the lower heating value of the fuel.
[A.A.C. R18-2-719.I]

3. Sulfur Dioxide

a. Emission Limitations and Standards

The Permittee shall limit the emission of sulfur dioxide to no more than 1.0 pound per million Btu heat input.
[A.A.C. R18-2-719.F]

b. Monitoring, Recordkeeping and Reporting Requirements

(1) The Permittee shall record daily the sulfur content of the fuel being fired. This may be accomplished by maintaining on record a copy of that part of the contract with the vendor that specifies the sulfur content of the fuel.
[A.A.C. R18-2-719.I]

(2) The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired exceeds 0.8%.
[A.A.C. R18-2-719.J]

4. Permit Shield

Compliance with the requirements of Condition III.A shall be deemed compliance with A.A.C. R18-2-719.B, 719.C, 719.E, 719.F, 719.H, 719.I, and 719.J.
[A.A.C. R18-2-325]

B. NESHAP Requirements for Stationary RICE Under 40 CFR 63 Subpart ZZZZ

1. General Requirements

a. The Permittee shall operate and maintain at all times the engine including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63 Subpart ZZZZ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 CFR 63.6605(b)]

b. The Permittee shall minimize the engine’s time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
[40 CFR 63.6625(h)]

c. The Permittee shall operate and maintain the engine and after-treatment control device (if any) according to the manufacturer's emission-related

written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)]

2. Operation Requirements

a. The Permittee shall comply with the following operation and maintenance requirements:

[40 CFR 63.6603(a), 63.6625(i) and 40 CFR 63, Subpart ZZZZ, Table 2d]

(1) The Permittee shall change the oil and filter every 500 hours operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program shall be completed. The oil analysis must be performed at the same frequency specified for changing the oil. The Permittee shall at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

(a) Total Base Number: less than 30 percent of the Total Base Number of the oil when new;

(b) Viscosity: changed more than 20 percent from the viscosity of oil when new; and

(c) Water Content: greater than 0.5 percent by volume.

If all of the above limits are not exceeded, the Permittee is not required to change the oil. If any of the above limits are exceeded, the Permittee shall change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later. The analysis program shall be part of the maintenance plan for the operation of the engine.

(2) The Permittee shall inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(3) The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

3. Compliance Requirements

a. The Permittee shall be in compliance with all applicable requirements of 40 CFR 63, Subpart ZZZZ at all times.

[40 CFR 63.6605(a)]

b. The Permittee shall demonstrate continuous compliance by operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions, or developing and following a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6640(a), Table 6, Entry 9]

4. Monitoring, Recordkeeping, and Reporting Requirements

a. If the Permittee elects to utilize the oil analysis program option in Condition III.B.2.a(1) above, it shall keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine.

[40 CFR 63.6625(i)]

b. The Permittee shall report all deviations as defined in 40 CFR 63, Subpart ZZZZ in the semiannual report of monitoring activities required by Condition I.B.2 of Attachment "B."

[40 CFR 63.6650(f)]

c. The Permittee shall keep records of the maintenance conducted on the engine in order to demonstrate that the stationary RICE and after-treatment control device (if any) was operated and maintained according to any developed maintenance plan.

[40 CFR 63.6655(e)(3)]

d. The Permittee shall keep each record in hard copy or electronic form for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records shall be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).

[40 CFR 63.6660(a)-(c)]

5. Permit Shield

Compliance with the requirements of Condition III.B shall be deemed compliance with 40 CFR 63.6603(a), 63.6605(a), 63.6605(b), 63.6625(e)(3), 63.6625(h), 63.6625(i), 63.6640(a), 63.6650(f), 63.6655(e)(3), 63.6660(a), 63.6660(b), 63.6660(c).

[A.A.C. R18-2-325]

ATTACHMENT "E": EQUIPMENT LIST

Only the conveyor belt transfer points as defined in 40 CFR 60.381 (not the entire conveyors) are subject to 40 CFR 60 Subpart LL.
Pollution control devices are not affected facilities subject to regulatory requirements; they control affected facilities subject to regulatory requirements.

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
Operation 001: Mining Operations							
001-002	Dump Pocket Feed Hopper 1	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Dump Pocket Feed Hopper 2	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Dump Pocket Feed Hopper 3	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
001-186	Apron Feeder AF1	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	In-Pit Crusher 1	7,500 tph	Traylor by Fuller	60" Type 'C'	87-2037-720-1	1988	I.B of Attachment "C" (LL)
001-187	Apron Feeder AF2	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	In-Pit Crusher 2	7,500 tph	Traylor by Fuller	60" Type 'C'	87-2037-720-2	1988	I.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
001-249	Apron Feeder AF3	7,200 tph	NA	96"W	NA	NA	I.A of Attachment "C" (721)
	In-Pit Crusher 3	6,750 tph	Metso	60-110 Gyratory Crusher	251-CRU-310	2009	I.B of Attachment "C" (LL)
001-353	In-Pit Crusher 1 FFDC	11,300 dscfm	FARR	GS36/30	NA	NA	I.B and I.C of Attachment "C"
	In-Pit Crusher 1	7,500 tph	Traylor by Fuller	60" Type 'C'	87-2037-720-1	1988	I.B of Attachment "C" (LL)
	Rock Hammer 1	NA	Allied	3418	2074	2008	I.A of Attachment "C" (721)
	Discharge Conveyor P1	7,500 tph	FMMI	NA x 96"W	Custom Fabricated	1988	I.B of Attachment "C" (LL) - transfer onto the conveyor
001-006	In-Pit Crusher 2 FFDC	17,900 dscfm	FARR	GS32	213052	2006	I.B and I.C of Attachment "C"
	In-Pit Crusher 2	7,500 tph	Traylor by Fuller	60" Type 'C'	87-2037-720-2	1988	I.B of Attachment "C" (LL)
	Rock Hammer 2	NA	Allied	3418	710411	2008	I.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Discharge Conveyor DC2	7,500 tph	FMMI	637'L x 96"W	Custom Fabricated	1988	I.B of Attachment "C" (LL) - transfer onto the conveyor
001-250	In-Pit Crusher 3 and FB3/P11 FFDC	12,000 dscfm	FARR	GS 24/20	839043002	2008	I.B of Attachment "C"
	In-Pit Crusher 3	6,750 tph	Metso	60-110 Gyratory Crusher	251-CRU-310	2009	I.B of Attachment "C" (LL)
	Rock Hammer 3	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Feeder Belt FB3	6,750 tph	Continental	7200-96	251-FDA-301	2009	I.B of Attachment "C" (LL) - transfer onto the conveyor
	Discharge Conveyor P11	7,200 tph	Continental	72"W	251-CVB-316	2009	I.A of Attachment "C" (721)
001-354	P1/P13 FFDC	6,700 dscfm	FARR	GS16 BV	NA	NA	I.A and I.C of Attachment "C"
	Discharge Conveyor P1	7,500 tph	FMMI	NA x 96"W	Custom Fabricated	1988	I.A of Attachment "C" (721) - transfer from the conveyor
	Conveyor Belt P13	5,400 tph	NA	NA	NA	NA	I.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
001-355	P13/P14 and P13/R9 FFDC	13,400 dscfm	FARR	GS36/30	NA	NA	I.A and I.C of Attachment "C"
	Conveyor Belt P13	5,400 tph	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Diverter Gate 1	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Conveyor Belt P14	5,400 tph	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Conveyor Belt R9	5,200 tph	FMMI	1,300' L x 54" W	839020	2006	I.A of Attachment "C" (721)
001-356	Conveyor Belt P14 (transfer to Mill IOS)	5,400 tph	NA	NA	NA	NA	I.A of Attachment "C" (721)
001-251	P11/P5 and P11/P12 FFDC	15,300 dscfm	FARR	GS-20/16	T 251-CDCD-340	2008	I.A and I.C of Attachment "C"
	Discharge Conveyor P11	7,200 tph	Continental	72"W	251-CVB-316	2009	I.A of Attachment "C" (721)
	Conveyor Belt P12	7,200 tph	Continental	72"W	251-CVB-346	2009	I.A of Attachment "C" (721)
	Conveyor Belt P5	9,000 tph	FMMI	NA x 72" W	703490	1988	I.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
001-344	Conveyor Belt P12.	7,200 tph	Continental	72”W	251-CVB-346	2009	I.A of Attachment “C” (721)
	Conveyor Belt P10	5,200 tph	FMMI	4000’ L x 54” W	Custom Fabricated 850302	2006	I.A of Attachment “C” (721)
001-015	P5/P6 FFDC	12,800 dscfm	FARR	GS-20/60	862022004	2009	I.A and I.C of Attachment “C”
	Conveyor Belt P5	9,000 tph	FMMI	NA x 72” W	703490	1988	I.A of Attachment “C” (721)
	Conveyor Belt P6	9,100 tph	FMMI	8,898’L x 60”W	703491	1988	I.A of Attachment “C” (721)
001-016	Conveyor Belt P6 (transfer to Mill IOS)	9,100 tph	FMMI	8,898’L x 60”W	703491	1988	I.A of Attachment “C” (721)
001-225	DC2/P9 and P9/P10 FFDC	18,400 dscfm	FARR	GS-32	213053	2006	I.A and I.C of Attachment “C”
	Diverter Gate 2	NA	NA	NA	NA	NA	I.A of Attachment “C” (721)
	Discharge Conveyor DC2	7,500 tph	FMMI	637’L x 96”W	Custom Fabricated	1988	I.A of Attachment “C” (721) - transfer from the conveyor

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt P9	7,200 tph	FMMI	253'L x 72"W	Custom Fabricated 839009	2006	I.A of Attachment "C" (721)
	Conveyor Belt P10	5,200 tph	FMMI	4000' L x 54" W	Custom Fabricated 850302	2006	I.A of Attachment "C" (721)
001-226	Conveyor Belt P10 (transfer to MFL IOS)	5,200 tph	FMMI	4,000'L x 54"W	Custom Fabricated 850302	2006	I.A of Attachment "C" (721)
001-325	DC2/P5 FFDC	7,300 dscfm	FARR	GS-16	213054	2006	I.A and I.C of Attachment "C"
	Discharge Conveyor DC2	7,500 tph	FMMI	637'L x 96"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
	Conveyor Belt P5	9,000 tph	FMMI	NA x 72" W	703490	1988	I.A of Attachment "C" (721)
001-323	Portable Clean Up Conveyor	50 tph	NA	NA	NA	2010	I.A of Attachment "C" (721)
001-299	Mill IOS/R1A FFDC	12,500 dscfm	FARR	GS36/30	A21007018	NA	I.A and I.C of Attachment "C"
	Reclaim Feeder 1	2,000 tph	NICO	FD4486	FD911	1988	I.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Reclaim Feeder 2	2,000 tph	NICO	FD4486	253-FDA-201	1988	I.A of Attachment "C" (721)
	Reclaim Feeder 3	2,000 tph	NICO	FD4486	253-FDA-301	1988	I.A of Attachment "C" (721)
	Reclaim Feeder 4	2,000 tph	NICO	FD4486	253-FDA-401	1988	I.A of Attachment "C" (721)
	Conveyor Belt R1A	5,600 tph	FMMI	1,400'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
001-300	Mill IOS/R1B FFDC	10,000 dscfm	FARR	GS-24/20	A21007017	NA	I.A and I.C of Attachment "C"
	Reclaim Feeder 5	2,400 tph	NICO	FD4486	253-FDA-501	1988	I.A of Attachment "C" (721)
	Reclaim Feeder 6	2,400 tph	NICO	FD4486	253-FDA-601	1988	I.A of Attachment "C" (721)
	Reclaim Feeder 7	2,400 tph	NICO	FD4486	253-FDA-701	1988	I.A of Attachment "C" (721)
	Conveyor Belt R1B	5,600 tph	FMMI	1,400'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
001-272	R1A and R1B/R7 FFDC	3,000 dscfm	FARR	GS-6	A21007019	2012	I.A and I.C of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt R1A	5,600 tph	FMMI	1,400'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
	Conveyor Belt R1B	5,600 tph	FMMI	1,400'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
	Conveyor Belt R7	5,500 tph	FMMI	1,162'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
001-277	R1A and R1B/R2 Bag Collector 1	3,100 dscfm	Mikropul	49S-8-20-TR-B	200077H8GA	2001	I.A and I.C of Attachment "C"
	Conveyor Belt R1A	5,600 tph	FMMI	1,400'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
	Conveyor Belt R1B	5,600 tph	FMMI	1,400'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
	Conveyor Belt R2	5,538 tph	FMMI	249'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
001-278	R2/R11 FFDC	4,600 dscfm	FARR	GS6BV	A21007004	NA	I.A and I.C of Attachment "C"
	Conveyor Belt R2	5,538 tph	FMMI	249'L x 60"W	Custom Fabricated	1988	I.A of Attachment "C" (721)
	Conveyor Belt R11	5,538 tph	NA	501'L x 60"W	NA	NA	I.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
001-228	MFL IOS/R8 FFDC	12,800 dscfm	FARR	GS-24	213056	2006	I.A and I.C of Attachment "C"
	Apron Feeder 1	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Apron Feeder 2	NA	NA	NA	NA	NA	I.A of Attachment "C" (721)
	Conveyor Belt R8	5,200 tph	FMMI	2,000'L x 54"W	839018	2006	I.A of Attachment "C" (721)
001-229	R8/R9 FFDC	10,600 dscfm	FARR	GS-16	213057	2006	I.A and I.C of Attachment "C"
	Conveyor Belt R8	5,200 tph	FMMI	2,000'L x 54"W	839018	2006	I.A of Attachment "C" (721)
	Conveyor Belt R9	5,200 tph	FMMI	1,300' L x 54" W	839020	2006	I.A of Attachment "C" (721)
Operation 002: Morenci Concentrator							
002-022	R7/1A and 1B FFDC	10,000 cfm	FARR	GS16	212582	2006	II.A of Attachment "C"
	Conveyor Belt R7	5,500 tph	FMMI	1,162'L x 60"W	Custom Fabricated	1988	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Coarse Ore Splitter	5,500 tph	FMMI	Custom Fabricated	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor Belt 1A	2,750 tph	FMMI	820'L x 54"W	Custom Fabricated	1988	II.A of Attachment "C" (721)
	Conveyor Belt 1B	2,750 tph	FMMI	820'L x 54"W	Custom Fabricated	1988	II.A of Attachment "C" (721)
002-023	1A/COSB FFDC 1	3,500 cfm	FARR	GS6BV	212564-1	2006	II.A of Attachment "C"
	1A/COSB FFDC 2	3,500 cfm	FARR	GS6BV	212564-2	2006	II.A of Attachment "C"
	1A/COSB FFDC 3	3,500 cfm	FARR	GS6BV	212564-3	2006	II.A of Attachment "C"
	1A/COSB FFDC 4	3,500 cfm	FARR	GS6BV	212564-4	2006	II.A of Attachment "C"
	1A/COSB FFDC 5	3,500 cfm	FARR	GS6BV	212564-5	2006	II.A of Attachment "C"
	1A/COSB FFDC 6	3,500 cfm	FARR	GS6BV	212564-6	2006	II.A of Attachment "C"
	1A/COSB FFDC 7	3,500 cfm	FARR	GS6BV	212564-7	2006	II.A of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	1A/COSB FFDC 8	3,500 cfm	FARR	GS6BV	212564-8	2006	II.A of Attachment "C"
	1A/COSB FFDC 9	3,500 cfm	FARR	GS6BV	212564-9	2006	II.A of Attachment "C"
	Conveyor Belt 1A	2,750 tph	FMMI	820'L x 54"W	Custom Fabricated	1988	II.A of Attachment "C" (721)
	Coarse Ore Storage Bin (COSB)	NA	NA	NA	NA	NA	II.A of Attachment "C" (721)
002-024	1B/COSB FFDC 1	3,500 cfm	FARR	GS6BV	212564-10	2006	II.A of Attachment "C"
	1B/COSB FFDC 2	3,500 cfm	FARR	GS6BV	212564-11	2006	II.A of Attachment "C"
	1B/COSB FFDC 3	3,500 cfm	FARR	GS6BV	212564-12	2006	II.A of Attachment "C"
	1B/COSB FFDC 4	3,500 cfm	FARR	GS6BV	212564-13	2006	II.A of Attachment "C"
	1B/COSB FFDC 5	3,500 cfm	FARR	GS6BV	212564-14	2006	II.A of Attachment "C"
	1B/COSB FFDC 6	3,500 cfm	FARR	GS6BV	212564-15	2006	II.A of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	1B/COSB FFDC 7	3,500 cfm	FARR	GS6BV	212564-16	2006	II.A of Attachment "C"
	1B/COSB FFDC 8	3,500 cfm	FARR	GS6BV	212564-17	2006	II.A of Attachment "C"
	1B/COSB FFDC 9	3,500 cfm	FARR	GS6BV	212564-18	2006	II.A of Attachment "C"
	Conveyor Belt 1B	2,750 tph	FMMI	820'L x 54"W	Custom Fabricated	1988	II.A of Attachment "C" (721)
	Coarse Ore Storage Bin (COSB)	NA	NA	NA	NA	NA	II.A of Attachment "C" (721)
002-025	COSB/AFA/2A FFDC	19,500 cfm	FARR	GS36	212565	2006	II.A of Attachment "C"
	Apron Feeder A1	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder A2	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder A3	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder A4	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 2A	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-026	COSB/AFB/2B FFDC	19,500 cfm	FARR	GS36	212566	2006	II.A of Attachment "C"
	Apron Feeder B1	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder B2	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder B3	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder B4	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Conveyor Belt 2B	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-027	COSB/AFC/2C FFDC	19,500 cfm	FARR	GS36	212567	2006	II.A of Attachment "C"
	Apron Feeder C1	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder C2	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Apron Feeder C3	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder C4	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Conveyor Belt 2C	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-028	COSB/AFD/2D FFDC	19,500 cfm	FARR	GS36	212568	2006	II.A of Attachment "C"
	Apron Feeder D1	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder D2	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder D3	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Apron Feeder D4	400 tph	Stevens Adams	25'L x 60"W	NA	1941	II.A of Attachment "C" (721)
	Conveyor Belt 2D	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-029	Fine Crushing Line A FFDC 1	26,000 cfm	FARR	GS48	212569	2006	II.B of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 2A	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Vibrating Grizzly 1	1,300 tph	FMMI	6'L x 16'W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Secondary Crusher 1	760 tph	Sandvik	CH 870	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Shaker Screen 1AN	286 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 1AS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 1BN	286 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 1BS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 1A	750 tph	Symons	7'	7144	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 1B	750 tph	Symons	7'	NA	1941	II.A of Attachment "C" (721)
002-033	Fine Crushing Line A FFDC 2	15,000 cfm	FARR	GS48	212573	2006	II.A of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-030	Fine Crushing Line B FFDC 1	23,700 dscfm	FARR	GS36	212507	2006	II.B and II.C of Attachment "C"
	Conveyor Belt 2B	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Vibrating Grizzly 2	1,300 tph	FMMI	6'L x 16'W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Secondary Crusher 2	760 tph	Sandvik	CH 870	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Shaker Screen 2AN	286 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 2AS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 2BN	286 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 2BS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 2A	750 tph	Symons	7'	NA	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Tertiary Crusher 2B	750 tph	Symons	7’	761E	1941	II.A of Attachment “C” (721)
002-034	Fine Crushing Line B FFDC 2	12,000 cfm	FARR	NA	NA	2006	II.A of Attachment “C”
	Conveyor Belt 3	2,600 tph	FMMI	NA x 54”W	Custom Fabricated	1941	II.A of Attachment “C” (721)
002-031	Fine Crushing Line C FFDC 1	25,100 dscfm	FARR	GS36	212572	2006	II.B and II.C of Attachment “C”
	Conveyor Belt 2C	1,300 tph	FMMI	328’L x 60”W	Custom Fabricated	1941	II.A of Attachment “C” (721)
	Vibrating Grizzly 3	1,300 tph	FMMI	6’L x 16’W	Custom Fabricated	1941	II.A of Attachment “C” (721)
	Secondary Crusher 3	760 tph	Sandvik	CH 870	NA	Post-8/24/1982	II.B of Attachment “C” (LL)
	Shaker Screen 3AN	286 tph	WS Tyler	F-600 5’x10’	NA	1941	II.A of Attachment “C” (721)
	Shaker Screen 3AS	364 tph	WS Tyler	F-600 5’x10’	NA	1941	II.A of Attachment “C” (721)
	Shaker Screen 3BN	286 tph	WS Tyler	F-600 5’x10’	NA	1941	II.A of Attachment “C” (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Shaker Screen 3BS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 3A	750 tph	Symons	7'	NA	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 3B	750 tph	Symons	7'	7263	1941	II.A of Attachment "C" (721)
002-035	Fine Crushing Line C to 3B to 3 FFDC	13,900 dscfm	FARR	GS24	212577	2006	II.A and II.C of Attachment "C"
	Conveyor Belt 3B	1,300 tph	FMMI	96'L x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor Belt 3	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-036	Fine Crushing Line C to 3B to 3A FFDC	16,500 dscfm	FARR	GS-24	212578	2006	II.A and II.C of Attachment "C"
	Conveyor Belt 3B	1,300 tph	FMMI	96'L x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor Belt 3A	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-032	Fine Crushing Line D FFDC 1	23,700 dscfm	FARR	GS48	705626	2006	II.B and II.C of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 2D	1,300 tph	FMMI	328'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Vibrating Grizzly 4	1,300 tph	FMMI	6'L x 16'W	Custom Fabricated	2011	II.B of Attachment "C" (LL)
	Secondary Crusher 4	760 tph	Sandvik	CH 870	NA	2012	II.B of Attachment "C" (LL)
	Shaker Screen 4AN	286 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 4AS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 4BN	286 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Shaker Screen 4BS	364 tph	WS Tyler	F-600 5'x10'	NA	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 4A	750 tph	Symons	NA	NA	1941	II.A of Attachment "C" (721)
	Tertiary Crusher 4B	750 tph	Symons	7'	7263	1941	II.A of Attachment "C" (721)
002-326	Fine Crushing Line D FFDC 2	13,000 cfm	FARR	GS24	212574	2006	II.A of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3A	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-311	West Transfer Points FFDC	16,900 dscfm	FARR	NA	NA	NA	II.B and II.C of Attachment "C"
	Conveyor Belt 3	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	West Proportioning Gate 1	1,750 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	West RC Feed Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	West RC Product Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	West Proportioning Gate 2	2,300 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	West Transfer Conveyor	1,750 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Conveyor Belt 4	2,600 tph	FMMI	147'L x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-312	West Surge Bin FFDC	3,000 dscfm	FARR	NA	NA	NA	II.B and II.C of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	West RC Feed Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	West Surge Bin	300 tons	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-313	West RC FFDC	9,300 dscfm	FARR	NA	NA	NA	II.B and II.C of Attachment "C"
	West RC Feeder	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	West Flop Gate	2,300 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	West RC Feed Bin	NA	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	West RC	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	West RC Product Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-314	East Transfer Points FFDC	16,900 dscfm	FARR	NA	NA	NA	II.B and II.C of Attachment "C"
	Conveyor Belt 3A	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	East Proportioning Gate 1	1,750 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	East RC Feed Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	East RC Product Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	East Proportioning Gate 2	2,300 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	East Transfer Conveyor	550 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Conveyor Belt 4A	1,750 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-315	East Surge Bin FFDC	3,000 dscfm	FARR	NA	NA	NA	II.B and II.C of Attachment "C"
	East RC Feed Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	East Surge Bin	300 tons	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-316	East RC FFDC	9,300 dscfm	FARR	NA	NA	NA	II.B and II.C of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	East RC Feeder	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	East Flop Gate	2,300 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	East RC Feed Bin	NA	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	East RC	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	East RC Product Conveyor	2,300 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-038	3/4/5 FFDC	19,500 cfm	FARR	GS 36	212579	2006	II.A of Attachment "C"
	Conveyor Belt 3	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	West Proportioning Gate 1	1,750 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	Conveyor Belt 4	2,600 tph	FMMI	147'L x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor Belt 5	2,600 tph	FMMI	1,086'L x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
002-039	3A/4A/5A FFDC	19,500 cfm	FARR	GS 36	212580	2006	II.B of Attachment "C"
	Conveyor Belt 3A	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	East Proportioning Gate 1	1,750 tph	NA	NA	NA	NA	II.A of Attachment "C" (721)
	Conveyor Belt 4A	1,750 tph	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Conveyor Belt 5A	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
002-040	5A/FOSB FFDC 1	3,500 cfm	FARR	GS6BV	212581-10	2006	II.A of Attachment "C"
	5A/FOSB FFDC 2	3,500 cfm	FARR	GS6BV	212581-11	2006	II.A of Attachment "C"
	5A/FOSB FFDC 3	3,500 cfm	FARR	GS6BV	212581-12	2006	II.A of Attachment "C"
	5A/FOSB FFDC 4	3,500 cfm	FARR	GS6BV	212581-13	2006	II.A of Attachment "C"
	5A/FOSB FFDC 5	3,500 cfm	FARR	GS6BV	212581-14	2006	II.A of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	5A/FOSB FFDC 6	3,500 cfm	FARR	GS6BV	212581-15	2006	II.A of Attachment "C"
	5A/FOSB FFDC 7	3,500 cfm	FARR	GS6BV	212581-16	2006	II.A of Attachment "C"
	5A/FOSB FFDC 8	3,500 cfm	FARR	GS6BV	212581-17	2006	II.A of Attachment "C"
	5A/FOSB FFDC 9	3,500 cfm	FARR	GS6BV	212581-18	2006	II.A of Attachment "C"
	Conveyor Belt 5A	2,600 tph	FMMI	NA x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Fine Ore Storage Bin (FOSB)	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-041	5/FOSB FFDC 1	3,500 cfm	FARR	GS6BV	212581-1	2006	II.A of Attachment "C"
	5/FOSB FFDC 2	3,500 cfm	FARR	GS6BV	212581-2	2006	II.A of Attachment "C"
	5/FOSB FFDC 3	3,500 cfm	FARR	GS6BV	212581-3	2006	II.A of Attachment "C"
	5/FOSB FFDC 4	3,500 cfm	FARR	GS6BV	212581-4	2006	II.A of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	5/FOSB FFDC 5	3,500 cfm	FARR	GS6BV	212581-5	2006	II.A of Attachment "C"
	5/FOSB FFDC 6	3,500 cfm	FARR	GS6BV	212581-6	2006	II.A of Attachment "C"
	5/FOSB FFDC 7	3,500 cfm	FARR	GS6BV	212581-7	2006	II.A of Attachment "C"
	5/FOSB FFDC 8	3,500 cfm	FARR	GS6BV	212581-8	2006	II.A of Attachment "C"
	5/FOSB FFDC 9	3,500 cfm	FARR	GS6BV	212581-9	2006	II.A of Attachment "C"
	Conveyor Belt 5	2,600 tph	FMMI	1,086'L x 54"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Fine Ore Storage Bin (FOSB)	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-045	Belt Feeder 1E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 1W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-1	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-1	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 1	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-046	Belt Feeder 2E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 2W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-2	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-2	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 2	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-047	Belt Feeder 3E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 3W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-3	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-3	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 3	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-048	Belt Feeder 4E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 4W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-4	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-4	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 4	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-049	Belt Feeder 5E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 5W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-5	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-5	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 5	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-050	Belt Feeder 6E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 6W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-6	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-6	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 6	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-051	Belt Feeder 7E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 7W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-7	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-7	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 7	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-052	Belt Feeder 8E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 8W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-8	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-8	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 8	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-053	Belt Feeder 9E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 9W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-9	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-9	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 9	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-054	Belt Feeder 10E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 10W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-10	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-10	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 10	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-055	Belt Feeder 11E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 11W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-11	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-11	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 11	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-056	Belt Feeder 12E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 12W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-12	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-12	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 12	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-057	Belt Feeder 13E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 13W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-13	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-13	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 13	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-058	Belt Feeder 14E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 14W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-14	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-14	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 14	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-059	Belt Feeder 15E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 15W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-15	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-15	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 15	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-060	Belt Feeder 16E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 16W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-16	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-16	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 16	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-061	Belt Feeder 17E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 17W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-17	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-17	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 17	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-062	Belt Feeder 18E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 18W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-18	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-18	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 18	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-063	Belt Feeder 19E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 19W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-19	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-19	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 19	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-064	Belt Feeder 20E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 20W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-20	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-20	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 20	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-065	Belt Feeder 21E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 21W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-21	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-21	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 21	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-066	Belt Feeder 22E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 22W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-22	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-22	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 22	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-067	Belt Feeder 23E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 23W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-23	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-23	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 23	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-068	Belt Feeder 24E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 24W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-24	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-24	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 24	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-069	Belt Feeder 25E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 25W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-25	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-25	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 25	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-070	Belt Feeder 26E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 26W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-26	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-26	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 26	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-071	Belt Feeder 27E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 27W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-27	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 7-27	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 27	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-072	Belt Feeder 28	120 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-28	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-28	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Ball Mill 28	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-073	Belt Feeder 29E	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Belt Feeder 29W	60 tph	FMMI	25'L x 60"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 6-29	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1941	II.A of Attachment "C" (721)
	Conveyor 7-29	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1941	II.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Ball Mill 29	NA	NA	NA	NA	Pre-8/24/1982	II.A of Attachment "C" (721)
002-074	Belt Feeder 30	120 tph	FMMI	25'L x 60"W	Custom Fabricated	1988	II.B of Attachment "C" (LL)
	Conveyor 6-30	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1988	II.B of Attachment "C" (LL)
	Conveyor 7-30	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1988	II.B of Attachment "C" (LL)
	Ball Mill 30	NA	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-075	Belt Feeder 31	120 tph	FMMI	25'L x 60"W	Custom Fabricated	1990	II.B of Attachment "C" (LL)
	Conveyor 6-31	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1990	II.B of Attachment "C" (LL)
	Conveyor 7-31	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1990	II.B of Attachment "C" (LL)
	Ball Mill 31	NA	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-076	Belt Feeder 32	120 tph	FMMI	25'L x 60"W	Custom Fabricated	1995	II.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor 6-32	120 tph	FMMI	55.5'L x 24"W	Custom Fabricated	1995	II.B of Attachment "C" (LL)
	Conveyor 7-32	120 tph	FMMI	92'L x 20"W	Custom Fabricated	1995	II.B of Attachment "C" (LL)
	Ball Mill 32	NA	NA	NA	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
002-321	Regrind Mill 1	178 tph	Metso	VTM-1000WB	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Regrind Mill 2	178 tph	Metso	VTM-1000WB	NA	Post-8/24/1982	II.B of Attachment "C" (LL)
	Morenci Concentrator Bulk Flotation	NA	NA	NA	NA	NA	II.A and II.E of Attachment "C" (721, 730)
Operation 003: Metcalf MFL Plant							
003-273	R9/R10 FFDC	3,000 dscfm	FARR	GS6BV	A21007026	2006	III.A and III.C of Attachment "C"
	Conveyor Belt R9	5,200 tph	FMMI	1,300' L x 54" W	839020	2006	III.A of Attachment "C" (721)
	Conveyor Belt R10	5,200 tph	NA	54"W	NA	NA	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-330	R10/R3 FFDC	3,000 dscfm	FARR	GS6BV	A21007027	2012	III.A and III.C of Attachment "C"
	Conveyor Belt R10	5,200 tph	NA	54"W	NA	NA	III.A of Attachment "C" (721)
	Conveyor Belt R3	5,600 tph	FMMI	1,817'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)
003-079	R3/R4 Bag Collector 3	3,200 dscfm	MikroPul	49S-8-20-TR-B	200077H3GA	2000	III.A and III.C of Attachment "C"
	Conveyor Belt R3	5,600 tph	FMMI	1,817'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)
	Conveyor Belt R4	4,615 tph	FMMI	6,200'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)
003-080	R4/R5/R6 Bag Collector 4	8,300 dscfm	MikroPul	121S-8-20-TR-C	200077H9GA	2000	III.A and III.C of Attachment "C"
	Conveyor Belt R4	4,615 tph	FMMI	6,200'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)
	Conveyor Belt R5	4,615 tph	FMMI	403'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)
	Conveyor Belt R6	4,615 tph	FMMI	351'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-082	Scrubber 3C	35,400 dscfm	National Hydro-filter	850	13D25003C	1974	III.A and III.C of Attachment "C"
	Conveyor Belt R6	4,615 tph	FMMI	351'L x 60"W	Custom Fabricated	1988/2000	III.A of Attachment "C" (721)
	Metcalf Track Hopper Storage Bin (MTHSB)	NA	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-317	FFDC 3A	38,000 dscfm	FARR	GS96/80	A21007020	2012	III.B and III.C of Attachment "C"
	Apron Feeder 2C1	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2C2	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2C3	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2C4	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2B3	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2B4	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Apron Feeder 2B5	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2B6	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2A3	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2A4	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2A5	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Apron Feeder 2A6	700 tph	Link-Belt	67'L x 48"W	NA	1974	III.A of Attachment "C" (721)
	Conveyor Belt 3C	1,500 tph	FMMI	210'L x 48"W	Custom Fabricated	1995	III.B of Attachment "C" (LL)
	Conveyor Belt 3B2	1,500 tph	FMMI	102'L x 48"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 3B3	1,500 tph	FMMI	102'L x 48"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 3A2	1,500 tph	FMMI	102'L x 48"W	Custom Fabricated	1974	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3A3	1,500 tph	FMMI	102'L x 48"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 4C	1,500 tph	FMMI	645'L x 54"W	Custom Fabricated	1995	III.B of Attachment "C" (LL)
	Conveyor Belt 4B	1,500 tph	FMMI	645'L x 54"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 4A	1,500 tph	FMMI	645'L x 54"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
003-301	FFDC 6A	31,100 dscfm	FARR	GS 60/50	A21007021	2012	III.B and III.C of Attachment "C"
	Conveyor Belt 4A	1,500 tph	FMMI	645'L x 54"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Scalping Screen A	1,867 tph	W.S. Tyler	F1608S-0	NA	1995	III.B of Attachment "C" (LL)
	Secondary Crusher A	1,867 tph	Nordberg	7' Extra Heavy Duty	35245962	1974	III.A of Attachment "C" (721)
	Secondary Screen A1	934 tph	C.E. Tyler	F-900	NA	1974	III.A of Attachment "C" (721)
	Secondary Screen A2	934 tph	C.E. Tyler	F-1406-X	20350	1974	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 7	2,319 tph	FMMI	602'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 8	1,435 tph	FMMI	606'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
003-302	FFDC 6B	27,500 dscfm	FARR	GS 60/50	A21007022	2012	III.B and III.C of Attachment "C"
	Conveyor Belt 4B	1,500 tph	FMMI	645'L x 54"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Scalping Screen B	1,867 tph	W.S. Tyler	F1608S-0	NA	1995	III.B of Attachment "C" (LL)
	Secondary Crusher B	1,867 tph	Nordberg	7' Extra Heavy Duty	35245961	1974	III.A of Attachment "C" (721)
	Secondary Screen B1	934 tph	C.E. Tyler	F-900	20737	1974	III.A of Attachment "C" (721)
	Secondary Screen B2	934 tph	C.E. Tyler	F-1406-X	20353	1974	III.A of Attachment "C" (721)
	Conveyor Belt 7	2,319 tph	FMMI	602'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 8	1,435 tph	FMMI	606'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-304	FFDC 1	27,700 dscfm	FARR	GS 60/50	A21007024	2012	III.B and III.C of Attachment "C"
	Conveyor Belt 4C	1,500 tph	FMMI	645'L x 54"W	Custom Fabricated	1995	III.B of Attachment "C" (LL)
	Scalping Screen C	1,867 tph	W.S. Tyler	F-1600	NA	1995	III.B of Attachment "C" (LL)
	Secondary Crusher C	1,867 tph	Nordberg	7' Extra Heavy Duty	7632	1995	III.B of Attachment "C" (LL)
	Secondary Screen C1	934 tph	W.S. Tyler	F-900	NA	1995	III.B of Attachment "C" (LL)
	Secondary Screen C2	934 tph	W.S. Tyler	F-900	NA	1995	III.B of Attachment "C" (LL)
	Conveyor Belt 7	2,319 tph	FMMI	602'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 8	1,435 tph	FMMI	606'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
003-089	Scrubber 5	41,400 dscfm	Ducon	A-33C, No. 102	C-89-0948-4	1989	III.A and III.C of Attachment "C"
	Conveyor Belt 7	2,319 tph	FMMI	602'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 5	3,390 tph	FMMI	660'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 8	1,435 tph	FMMI	606'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 11	1,435 tph	FMMI	89'L x 54"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
003-303	FFDC 8	20,400 dscfm	FARR	GS 48/40	A21007023	2012	III.A and III.C of Attachment "C"
	Conveyor Belt 5	3,390 tph	FMMI	660'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Conveyor Belt 6	3,390 tph	FMMI	1,292'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
003-088	Scrubber 4	45,900 dscfm	Ducon	A-33C, No. 114	C-89-0948-3	1989	III.B and III.C of Attachment "C"
	Conveyor Belt 6	3,390 tph	FMMI	1,292'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)
	Tertiary Crushing Surge Bin (TCSB)	NA	NA	NA	NA	1995	III.B of Attachment "C" (LL)
	Belt Feeder 12-1	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Belt Feeder 12-2	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)
	Belt Feeder 12-3	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)
	Belt Feeder 12-4	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)
	Belt Feeder 12-5	700 tph	NA	60"W	NA	1995	III.B of Attachment "C" (LL)
	Belt Feeder 12-6	700 tph	NA	60"W	NA	1995	III.B of Attachment "C" (LL)
003-306	Tertiary Crushing Dust Collector	62,500 cfm	Filter Technology LTD	NA	071-DCD-03432	NA	III.B of Attachment "C"
	Belt Feeder 12-1	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)
	Belt Feeder 12-2	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)
	Belt Feeder 12-3	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)
	Belt Feeder 12-4	700 tph	NA	60"W	NA	Pre-8/24/1982	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Belt Feeder 12-5	700 tph	NA	60"W	NA	1995	III.B of Attachment "C" (LL)
	Belt Feeder 12-6	700 tph	NA	60"W	NA	1995	III.B of Attachment "C" (LL)
	Tertiary Crusher C1	750 tph	Nordberg	7' Heavy Duty	NA	1974	III.A of Attachment "C" (721)
	Tertiary Crusher C2	750 tph	Nordberg	7' Heavy Duty	7731	1974	III.A of Attachment "C" (721)
	Tertiary Crusher C3	750 tph	Nordberg	7' Heavy Duty	35246337	1974	III.A of Attachment "C" (721)
	Tertiary Crusher C4	750 tph	Nordberg	7' Heavy Duty	35249618	1974	III.A of Attachment "C" (721)
	Tertiary Crusher C5	750 tph	Nordberg	7' Heavy Duty	7629	1995	III.B of Attachment "C" (LL)
	Tertiary Crusher C6	750 tph	Nordberg	7' Heavy Duty	7551	1995	III.B of Attachment "C" (LL)
003-307	Conveyor Belt 9 Dust Collector	62,500 cfm	Filter Technology LTD	NA	071-DCD-03433	NA	III.A of Attachment "C"
	Conveyor Belt 9	4,615 tph	FMMI	485'L x 60"W	Custom Fabricated	1974	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 14	4,615 tph	FMMI	NA x 60”W	Custom Fabricated	1974	III.A of Attachment “C” (721)
003-320	14/15 FFDC	3,500 dscfm	FARR	GS6BV	A21007016	2012	III.B and III.C of Attachment “C”
	Conveyor Belt 14	4,615 tph	FMMI	NA x 60”W	Custom Fabricated	1974	III.A of Attachment “C” (721)
	Conveyor Belt 15	4,615 tph	NA	60"W	NA	Post-8/24/1982	III.B of Attachment “C” (LL)
003-331	15/16 FFDC	3,100 dscfm	FARR	GS6BV	A21007025	2012	III.B and III.C of Attachment “C”
	Conveyor Belt 15	4,615 tph	NA	60"W	NA	Post-8/24/1982	III.B of Attachment “C” (LL)
	Conveyor Belt 16	4,615 tph	NA	54"W	NA	Post-8/24/1982	III.B of Attachment “C” (LL)
003-309	16/S11 FFDC	3,000 dscfm	FARR	GS8/6	A21007005	2012	III.B and III.C of Attachment “C”
	Conveyor Belt 16	4,615 tph	NA	54"W	NA	Post-8/24/1982	III.B of Attachment “C” (LL)
	Conveyor Belt S11	4,500 tph	FMMI	54"W	Custom Fabricated	2000	III.B of Attachment “C” (LL) - transfer onto the conveyor

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-199	Conveyor Belt S11 (transfer to FOIS)	4,500 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721) - transfer from the conveyor
003-441	Dust Suppression Fan	400 gpm	NA	NA	NA	NA	III.D of Attachment "C" (730)
003-201	FOIS/A1A Bag Collector 7	11,200 dscfm	MikroPul	49S-8-20-TR-C	200077H10GA	2000	III.A and III.C of Attachment "C"
	Belt Feeder SF1	3,750 tph	NA	72"W	NA	NA	III.A of Attachment "C" (721)
	Belt Feeder SF2	3,750 tph	NA	72"W	NA	NA	III.A of Attachment "C" (721)
	Conveyor Belt A1A	4,500 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-202	A1A/A2A Bag Collector 8	3,200 dscfm	MikroPul	49S-8-20-TR-B	200077H5GA	2000	III.A and III.C of Attachment "C"
	Conveyor Belt A1A	4,500 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
	Agglomeration Splitter	NA	NA	NA	NA	NA	III.A of Attachment "C" (721)
	Conveyor Belt A2A	2,600 tph	FMMI	48"W	Custom Fabricated	2000	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-203	A1A/A2C Bag Collector 9	3,200 dscfm	MikroPul	49S-8-20-TR-B	200077H17GA	2000	III.A and III.C of Attachment "C"
	Conveyor Belt A1A	4,500 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
	Agglomeration Splitter	NA	NA	NA	NA	NA	III.A of Attachment "C" (721)
	Conveyor Belt A2C	2,600 tph	FMMI	48"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-204	Agglomerating Unit 1	2,800 tph	FMMI	NA	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-205	Agglomerating Unit 2	2,800 tph	FMMI	NA	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-206	Conveyor Belt S12	5,600 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-207	Conveyor Stacking Splitter	NA	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-208	Conveyor Belt 13A (CSSA)	2,800 tph	FMMI	NA	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-209	Ramp Conveyor 14A (CSSA)	2,800 tph	FMMI	NA	Custom Fabricated	2000	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-210	Luffing Boom Conveyor 15A (CSSA)	2,800 tph	FMMI	NA	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-322	Conveyor Belt 16A (CSSA)	2,800 tph	FMMI	NA	Custom Fabricated	2009	III.A of Attachment "C" (721)
003-324	Conveyor Belt 17A (CSSA)	2,800 tph	FMMI	NA	Custom Fabricated	2011	III.A of Attachment "C" (721)
003-363	Mobile Stacking Conveyor 18A (CSSA)	2,800 tph	TNT	Ramp Super Portable	100000989093	2013	III.A of Attachment "C" (721)
003-382	Ramp Super Portable Conveyor 19A (CSSA)	2,800 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-211	Mobile Stacking Conveyor A (CSSA)	2,600 tph	FMMI	42"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-390	Grasshopper Conveyor (CSSA)	2,800 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-212	Radial Stacker A (CSSA)	2,600 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-214	Belt Feeder SF3 (CSSB)	2,800 tph	FMMI	NA	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-215	Conveyor Belt S13B (CSSB)	2,600 tph	FMMI	42"W	Custom Fabricated	2000	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-216	Ramp Conveyor S14B (CSSB)	2,600 tph	FMMI	42"W	Custom Fabricated	2007	III.A of Attachment "C" (721)
003-252	Conveyor Belt S16B (CSSB)	2,830 tph	FMMI	42"W	Custom Fabricated	2007	III.A of Attachment "C" (721)
003-217	Luffing Boom Conveyor S15B (CSSB)	2,600 tph	FMMI	48"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-329	Conveyor Belt S17B (CSSB)	2,800 tph	FMMI	72"W	Custom Fabricated	2012	III.A of Attachment "C" (721)
003-364	Mobile Stacking Conveyor S18B (CSSB)	2,800 tph	TNT	72"W Ramp Super Portable	100000989095	2013	III.A of Attachment "C" (721)
003-383	Ramp Super Portable Conveyor 19B (CSSB)	2,800 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-384	Ramp Super Portable Conveyor 20B (CSSB)	2,800 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-218	Mobile Stacking Conveyor B (CSSB)	2,600 tph	FMMI	42"W	Custom Fabricated	2000	III.A of Attachment "C" (721)
003-259	Super Portable Conveyor (CSSB)	2,800 tph	FMMI	NA	NA	NA	III.A of Attachment "C" (721)
003-219	Radial Stacker B (CSSB)	2,600 tph	FMMI	54"W	Custom Fabricated	2000	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-385	Overland Conveyor S26 (CSSC)	5,647 tph	NA	54"W	NA	NA	III.A of Attachment "C" (721)
003-386	Overland Conveyor S27 (CSSC)	5,647 tph	NA	54"W	NA	NA	III.A of Attachment "C" (721)
003-387	Overland Conveyor S28 (CSSC)	5,647 tph	NA	54"W	NA	NA	III.A of Attachment "C" (721)
003-388	Overland Conveyor S29 with Mobile Tripper (CSSC)	5,647 tph	NA	54"W	NA	NA	III.A of Attachment "C" (721)
003-389	Standard Super Portable Conveyor SP1 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-394	Portable Transfer Conveyor PT1 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-395	Radial Stacker RS1 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-396	Radial Stacker RS2 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-397	Mobile Stacker Conveyor MBC (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-398	Ramp Super Portable Conveyor RP1 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-399	Ramp Super Portable Conveyor RP2 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-400	Ramp Super Portable Conveyor RP3 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-401	Ramp Super Portable Conveyor RP4 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-402	Ramp Super Portable Conveyor RP5 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-403	Ramp Super Portable Conveyor RP6 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-404	Ramp Super Portable Conveyor RP7 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-405	Ramp Super Portable Conveyor RP8 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-406	Ramp Super Portable Conveyor RP9 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-407	Ramp Super Portable Conveyor RP10 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-408	Ramp Super Portable Conveyor RP11 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
003-409	Ramp Super Portable Conveyor RP12 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-410	Ramp Super Portable Conveyor RP13 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-411	Horizontal Feed Conveyor HFC1 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-412	Horizontal Conveyor HC1 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
003-413	Radial Stacker RS3 (CSSC)	5,647 tph	NA	NA	NA	NA	III.A of Attachment "C" (721)
Operation 004: Lime Slaking Plants and Lime Transloading							
004-231	Lime Silo 1	7,400 ft3	ZMI/Portec	850 QL	NA	NA	VI of Attachment "C" (730)
	Lime Silo 1 Dust Filter	1,175 cfm	Mac	DF-48	NA	NA	VI of Attachment "C" (730)
	Lime Transfer Conveyor	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
	Lime Feeder 1	NA	NA	NA	NA	NA	VI of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
004-232	Lime Silo 2	7,400 ft3	ZMI/Portec	850 QL	NA	NA	VI of Attachment "C" (730)
	Lime Silo 2 Dust Filter	1,175 cfm	Mac	DF-48	NA	NA	VI of Attachment "C" (730)
	Lime Transfer Conveyor	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
	Lime Feeder 2	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
004-233	Lime Slaker 1	6.25 tph	ZMI/Portec	M-55	NA	NA	VI of Attachment "C" (730)
004-234	Lime Slaker 2	6.25 tph	ZMI/Portec	M-55	NA	NA	VI of Attachment "C" (730)
004-275	Metcalf Lime Silo	300 tons	NA	NA	NA	NA	VI of Attachment "C" (730)
	Metcalf Lime Silo Bin Vent	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
	Metcalf Lime Screw Feeder	12.5 tph	NA	NA	NA	NA	VI of Attachment "C" (730)
004-276	Metcalf Lime Slaker	12.5 tph	NA	NA	NA	NA	VI of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Metcalf Lime Slaker Wet Scrubber	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
004-440	Metcalf Lime Grit Wet Screen	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
	Metcalf Lime Grit Screw Conveyor	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
	Metcalf Lime Grit Collection Bin	NA	NA	NA	NA	NA	VI of Attachment "C" (730)
Operation 005: MCCPP							
005-108	Natural Gas Turbine 1	204.89 MMBtu/hr at 4,000 feet (240 MMBtu/hr rated)	General Electric	Frame 5 Model M	214249	1970	I.A and I.C of Attachment "D" (719)
005-110	Natural Gas Turbine 2	204.89 MMBtu/hr at 4,000 feet (240 MMBtu/hr rated)	General Electric	Frame 5 Model M	214250	1970	I.A and I.C of Attachment "D" (719)
005-109	Natural Gas Boiler 1	210 MMBtu/hr at 4,000 feet (250 MMBtu/hr rated)	Foster Wheeler	NA	19401	1970	I.A and I.B of Attachment "D" (703)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
005-111	Natural Gas Boiler 2	210 MMBtu/hr at 4,000 feet (250 MMBtu/hr rated)	Foster Wheeler	NA	19402	1970	I.A and I.B of Attachment "D" (703)
005-260	Cooling Tower 1	17,100 gpm	NA	NA	NA	NA	II of Attachment "D" (730)
005-261	Cooling Tower 2	17,100 gpm	NA	NA	NA	NA	II of Attachment "D" (730)
005-432	Diesel Black Start Turbine Engine 1	300 hp	Cummins	V8-300	768193	11/1/1970 (rebuilt in 1978)	III of Attachment "D" (719, ZZZZ)
005-433	Diesel Black Start Turbine Engine 2	300 hp	Cummins	V8-300	768194	25873	III of Attachment "D" (719, ZZZZ)
Operation 006: Copper Concentrate Processing Operations							
006-391	Filter Feed Trash Screen	500 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
006-392	Copper Filter Discharge Hopper 1	500 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
	Copper Filter Discharge Hopper 2	500 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
	Copper Cake Discharge Feeder 1	500 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Copper Cake Discharge Feeder 2	500 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
	Final Concentrate Conveyor	500 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
006-044	Conveyor Belt 10A South	500 tph	FMMI	NA x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt 11	500 tph	FMMI	660'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt 11A	500 tph	FMMI	660'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt 11B	500 tph	FMMI	660'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt 12	500 tph	FMMI	62'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt 13	500 tph	FMMI	134'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt BA	500 tph	FMMI	660'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
	Conveyor Belt BB	500 tph	FMMI	660'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt BC	500 tph	FMMI	660'L x 24"W	Custom Fabricated	1941	V.A of Attachment "C" (721)
006-335	Copper Concentrate Storage Building	NA	NA	NA	NA	1941	V.A of Attachment "C" (721)
Operation 009: Solution Extraction/Electrowinning							
009-117	Central SX	38,290.75 ft2	FMMI	Custom Fabricated	Custom Fabricated	1987	VII of Attachment "C" (730)
009-118	Metcalf SX	61,510.45 ft2	FMMI	Custom Fabricated	Custom Fabricated	1987	VII of Attachment "C" (730)
009-119	Modoc SX	97,604.39 ft2	FMMI	Custom Fabricated	Custom Fabricated	1992	VII of Attachment "C" (730)
009-349	Stargo SX	51,345.39 ft2	FMMI	Custom Fabricated	Custom Fabricated	NA	VII of Attachment "C" (730)
009-121	Central EW	548 cells	FMMI	Custom Fabricated	Custom Fabricated	1987	VII of Attachment "C" (730)
009-122	Southside EW	220 cells	FMMI	Custom Fabricated	Custom Fabricated	1995	VII of Attachment "C" (730)
009-221	Stargo EW	324 cells	FMMI	Custom Fabricated	Custom Fabricated	2000	VII of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
009-129	Diluent Tank 1	51,188 gallons	FMMI	22'D x 18'H	233-D-002	NA	VII of Attachment "C" (730)
009-130	Diluent Tank 2	49,766 gallons	FMMI	25'D x 13.7'H	Custom Fabricated	NA	VII of Attachment "C" (730)
009-131	Diluent Tank 3	25,700 gallons	FMMI	18'D x 13.5'H	237-D-002	NA	VII of Attachment "C" (730)
009-350	Diluent Tank 4	27,071 gallons	FMMI	16'D x 18'H	Custom Fabricated	NA	VII of Attachment "C" (730)
009-132	Barren Organic Tank BO-1	60,910 gallons	FMMI	24'D x 18'H	233-D-003	NA	VII of Attachment "C" (730)
009-133	Barren Organic Tank BO-2A	82,916 gallons	FMMI	28'D x 18'H	233-D-001	NA	VII of Attachment "C" (730)
009-134	Barren Organic Tank BO-2B	84,957 gallons	FMMI	30'D x 16'H	Barren Organic Tank F	NA	VII of Attachment "C" (730)
009-135	Barren Organic Tank BO-3A	84,957 gallons	FMMI	30'D x 16'H	2283-TNK-00	NA	VII of Attachment "C" (730)
009-351	Partially Loaded Organic Tank	122,259 gallons	FMMI	34'D x 18'H	233-TNK-008	NA	VII of Attachment "C" (730)
009-138	Loaded Organic Tank LO-4A	98,500 gallons	FMMI	27'D x 23'H	Custom Fabricated	NA	VII of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
009-140	Organic Recovery Tank OR-2A	302,474 gallons	FMMI	60'D x 14.5'H	A Organic Recovery Tank	NA	VII of Attachment "C" (730)
009-141	Organic Recovery Tank OR-2B	302,474 gallons	FMMI	60'D x 14.5'H	B Organic Recovery Tank	NA	VII of Attachment "C" (730)
009-142	Organic Recovery Tank OR-3A	317,238 gallons	FMMI	60'D x 15'H	Organic Recovery Tank A	NA	VII of Attachment "C" (730)
009-143	Organic Recovery Tank OR-3B	317,238 gallons	FMMI	60'D x 15'H	Organic Recovery Tank B	NA	VII of Attachment "C" (730)
009-123	Small Industrial Natural Gas Boiler 1	17.56 MMBtu/hr at 4,000 feet (20.9 MMBtu/hr rated)	Cleaver Brooks	CB-700-500-125	94148	1995	II.B of Attachment "B" (Dc)
009-184	Small Industrial Natural Gas Boiler 2	17.56 MMBtu/hr at 4,000 feet (20.9 MMBtu/hr rated)	Cleaver Brooks	CB-700-500-125	OLO97318	1998	II.B of Attachment "B" (Dc)
009-185	Small Industrial Natural Gas Boiler 3	17.56 MMBtu/hr at 4,000 feet (20.9 MMBtu/hr rated)	Cleaver Brooks	CB-700-500-125	OLO97317	1998	II.B of Attachment "B" (Dc)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
009-222	Small Industrial Natural Gas Boiler 4	17.56 MMBtu/hr at 4,000 feet (20.9 MMBtu/hr rated)	NA	NA	NA	2000	II.B of Attachment "B" (Dc)
009-223	Small Industrial Natural Gas Boiler 5	17.56 MMBtu/hr at 4,000 feet (20.9 MMBtu/hr rated)	NA	NA	NA	2000	II.B of Attachment "B" (Dc)
009-274	Diesel Hot Water Pressure Cleaner 1	0.55 MMBtu/hr	North Star	157598	4K1BP1626 BF000501	2011	II.A of Attachment "B" (724)
009-347	Diesel Hot Water Pressure Cleaner 2	0.55 MMBtu/hr	North Star	157598	4K1BP1626 BF000502	2011	II.A of Attachment "B" (724)
009-422	Modoc Test Facility SX	1,418.72 ft2	CTI	NA	NA	1995	VII of Attachment "C" (730)
009-423	Modoc Test Facility EW	771.20 ft2	CTI	NA	NA	1995	VII of Attachment "C" (730)
009-424	A Organic Tank (Modoc Test Facility)	3,333.38 gallons	IPP	8.18'D x 8.5'H	NA	1995	VII of Attachment "C" (730)
009-425	B Organic Tank (Modoc Test Facility)	3,006.58 gallons	Southwest Fiberglass	8.18'D x 7.67'H	NA	2007	VII of Attachment "C" (730)
009-426	Diluent Tank (Modoc Test Facility)	1,266 gallons	IPP	6.0'D x 6.5'H	NA	1995	VII of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
009-427	Diesel Pressure Washer (Modoc Test Facility)	0.336 MMBtu/hr	Landa	MHC4-3500E	11100420-100127	2006	II.A of Attachment "B" (724)
Operation 010: Concrete Batch Plant							
010-144	Feed Hopper	NA	Ross Company	12 Yard Boss VP-S/N	Boss-23	1994	VIII of Attachment "C" (723)
010-145	Aggregate Conveyor Belt	NA	Ross Company	37'L x 30"W	NA	1994	VIII of Attachment "C" (723)
010-146	Fly Ash Silo	52 tons	Ross Company	NA	NA	1994	VIII of Attachment "C" (723)
	Fly Ash Silo Bin Vent	900 scfm	Ross Company	3 CP 250 Vent	NA	1994	VIII of Attachment "C" (723)
	Fly Ash Silo Screw Conveyor	NA	Ross Company	9.83'L x 9"W	NA	1994	VIII of Attachment "C" (723)
010-147	Cement Silo	52 tons	Ross Company	NA	NA	1994	VIII of Attachment "C" (723)
	Cement Silo Bin Vent	900 scfm	Ross Company	3 CP 250 Vent	NA	1994	VIII of Attachment "C" (723)
	Cement Silo Screw Conveyor	NA	Ross Company	NA	NA	1994	VIII of Attachment "C" (723)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
010-148	Aggregate Conveyor Belt.	NA	Ross Company	37'L x 30"W	NA	1994	VIII of Attachment "C" (723)
	Fly Ash Silo Screw Conveyor	NA	Ross Company	9.83'L x 9"W	NA	1994	VIII of Attachment "C" (723)
	Cement Silo Screw Conveyor	NA	Ross Company	NA	NA	1994	VIII of Attachment "C" (723)
	Weigh Hopper	100 yd3/hr	Ross Company	NA	NA	1994	VIII of Attachment "C" (723)
010-270	Propane Hot Water Heater 1	1.01 MMBtu/hr at 4,000 feet (1.2 MMBtu/hr rated)	Sioux Corp.	M-1	08-3126, 0809036	2008	II.A of Attachment "B" (724)
010-271	Propane Hot Water Heater 2	1.01 MMBtu/hr at 4,000 feet (1.2 MMBtu/hr rated)	Sioux Corp.	M-1	08-3136, 0802015	2008	II.A of Attachment "B" (724)
010-310	Propane Hot Water Heater 3	1.01 MMBtu/hr at 4,000 feet (1.2 MMBtu/hr rated)	Sioux Corp.	M-1	13-3703	2013	II.A of Attachment "B" (724)
Operation 011: Storage Tanks							
011-150	Diesel Tank D1	177,850 gallons	FMMI	31.25'D x 31'H	Custom Fabricated	Prior to 1984	IV.A of Attachment "B" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
011-151	Diesel Tank D2	200,434 gallons	FMMI	42.4'D x 31'H	Custom Fabricated	Prior to 1984	IV.A of Attachment "B" (730)
011-154	Diesel Tank D5	47,255 gallons	FMMI	20'D x 32'H	Custom Fabricated	Prior to 1984	IV.A of Attachment "B" (730)
011-161	Diesel Tank Pit 95	101,690 gallons	FMMI	27'D x 30'H	Custom Fabricated	Prior to 1984	IV.A of Attachment "B" (730)
011-155	Gasoline Tank G1	12,000 gallons	FMMI	9.00'D x 25' L	Custom Fabricated	Prior to 1984	IV.B and IV.C of Attachment "B" (710, CCCCCC)
011-156	Gasoline Tank G2	12,000 gallons	FMMI	9.00'D x 25' L	Custom Fabricated	Prior to 1984	IV.B and IV.C of Attachment "B" (710, CCCCCC)
011-157	Gasoline Tank G3	12,000 gallons	FMMI	9.00'D x 25' L	Custom Fabricated	Prior to 1984	IV.B and IV.C of Attachment "B" (710, CCCCCC)
Operation 013: Grizzly Operations							
013-195	Concentrate Grizzly	60 tph	FMMI	Custom Fabricated	Custom Fabricated	Prior to 1970	IX.A of Attachment "C" (721)
013-337	Construction Grizzly 1	500 tph	NA	NA	NA	NA	IX.B of Attachment "C" (722)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
013-338	Construction Grizzly 2	500 tph	NA	NA	NA	NA	IX.B of Attachment "C" (722)
013-339	Construction Grizzly 3	500 tph	NA	NA	NA	NA	IX.B of Attachment "C" (722)
013-380	Stockpile Grizzly 1	500 tph	FMMI	Custom Fabricated	Custom Fabricated	2012	IX.A of Attachment "C" (721)
013-381	Stockpile Grizzly 2	500 tph	FMMI	Custom Fabricated	Custom Fabricated	2012	IX.A of Attachment "C" (721)
Operation 014: Concentrate Leach Plant							
014-235	CLP Feed Hopper	29.1 tph	NA	NA	NA	NA	X of Attachment "C" (730)
014-341	CLP Feed Conveyor	29.1 tph	NA	NA	NA	NA	X of Attachment "C" (730)
014-242	Natural Gas Startup Boiler	17.64 MMBtu/hr at 4,000 feet (21 MMBtu/hr rated)	NA	NA	NA	Post-06/09/1989	II.B of Attachment "B" (Dc)
014-239	Pressure Leach Vessel	29.1 tph	NA	NA	NA	NA	X of Attachment "C" (730)
	PLV 2-Stage Scrubber	8,760 hours/year	MikroPul	Multi-Venturi	NA	2005	X of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
014-240	PLV Cooling Tower	600,000 gph	NA	NA	NA	NA	X of Attachment "C" (730)
014-241	Oxygen Plant Cooling Tower	309,000 gph	NA	NA	NA	NA	X of Attachment "C" (730)
014-348	Flocculant Bin	0.5 tph	NA	NA	NA	NA	X of Attachment "C" (730)
	Flocculant Bin Vent	500 acfm	NA	NA	NA	NA	X of Attachment "C" (730)
	Flocculant Feeder	0.5 tph	NA	NA	NA	NA	X of Attachment "C" (730)
014-254	Lime Silo	0.20 tph	Steel Structure, Inc.	NA	72493	2007	X of Attachment "C" (730)
	Lime Silo Bin Vent	NA	Modu-Kleen	Series 343-A	8000107	NA	X of Attachment "C" (730)
014-253	Super Sack Unloader	0.04 tph	NA	NA	NA	NA	X of Attachment "C" (730)
	Super Sack Unloader Bin Vent	NA	Modu-Kleen	Series 250	1098219	NA	X of Attachment "C" (730)
Operation 015: Diesel Emergency Engines							

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
015-262	Emergency Diesel Engine	757.68 hp	AB Volvo Penta	TAD1641GE	NA	2008	III.D and III.F of Attachment "B" (IIII, ZZZZ)
015-414	Metcalf Concentrator Diesel Emergency Generator	757 hp engine (504 kWe)	Kohler	NA	NA	Post-06/12/2006	III.D and III.F of Attachment "B" (IIII, ZZZZ)
015-415	ETPS Diesel Emergency Generator	324 hp engine (175 kWe)	Cummins	NA	NA	Post-06/12/2006	III.D and III.F of Attachment "B" (IIII, ZZZZ)
015-419	NTPS Diesel Emergency Generator	220 hp engine (137 – 143 kWe)	John Deere PowerTech	6068HF275	PE6068 H575246	5/29/2006 (Model Year 2005 engine)	III.A and III.B of Attachment "B" (719, ZZZZ)
015-429	Emergency Diesel Pump Engine LS-234	225 hp	Caterpillar	CAT C7	JTF 16993	2013	III.D and III.F of Attachment "B" (IIII, ZZZZ)
015-434	Metcalf Diesel Fire Pump Engine	350 hp	John Deere	6090HFC47	RG6090 L119729	4/24/2014	III.D and III.F of Attachment "B" (IIII, ZZZZ)
015-439	Emergency Diesel Generator G-1	1,141 hp engine (750 kWe)	Caterpillar	CAT C27	NA	NA (Model Year 2015 engine)	III.D and III.F of Attachment "B" (IIII, ZZZZ)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
015-442	Metcalf Clean Room Diesel Emergency Generator	69 hp engine (30 kWe)	Cummins	C30 D5 (Engine 4BT3.3-G5)	NA	NA (Model Year 2017 engine)	III.D and III.F of Attachment "B" (IIII, ZZZZ)
Operation 017: Metcalf Concentrator							
017-318	Secondary Screen Feed Bin FFDC	6,800 dscfm	FARR	GS10BV	A21007006	2012	IV.B and IV.C of Attachment "C"
	Conveyor Belt R11	5,538 tph	NA	501'L x 60"W	NA	NA	IV.A of Attachment "C" (721)
	B2 Secondary Crusher Discharge Conveyor	4,200 tph	NA	832'L x 60"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Secondary Screen Feed Bin	1,000 tons	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-280	Secondary Screening FFDC 1	26,200 dscfm	FARR	GS72/60	A21007009A	2012	IV.B and IV.C of Attachment "C"
	Secondary Screen Belt Feeder 1	4,160 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Secondary Screen 1	4,160 tph	Metso	Ellipti-Flow 4285	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B1 Secondary Crusher Feed Conveyor	4,200 tph	NA	830'L x 60"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	B3 Crushed Ore A Conveyor	4,800 tph	NA	919'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-281	Secondary Screening FFDC 2	25,900 dscfm	FARR	GS72/60	A21007009B	2012	IV.B and IV.C of Attachment "C"
	Secondary Screen Belt Feeder 2	4,160 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Secondary Screen 2	4,160 tph	Metso	Ellipti-Flow 4285	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B1 Secondary Crusher Feed Conveyor	4,200 tph	NA	830'L x 60"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B3 Crushed Ore A Conveyor	4,800 tph	NA	919'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-319	Secondary Crusher Feed Bin FFDC	3,700 dscfm	FARR	GS6BV	A21007007	2012	IV.B and IV.C of Attachment "C"
	B1 Secondary Crusher Feed Conveyor	4,200 tph	NA	830'L x 60"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Secondary Crusher Feed Bin	1,000 tons	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-283	Secondary Crushing FFDC 1	8,800 dscfm	FARR	GS24/20	A21007008A	2012	IV.B and IV.C of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Secondary Crusher Belt Feeder 1	1,829 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Secondary Crusher 1	1,829 tph	Metso	MP-1250	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B2 Secondary Crusher Discharge Conveyor	4,200 tph	NA	832'L x 60"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-284	Secondary Crushing FFDC 2	11,200 dscfm	FARR	GS24/20	A21007008B	2012	IV.B and IV.C of Attachment "C"
	Secondary Crusher Belt Feeder 2	1,829 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Secondary Crusher 2	1,829 tph	Metso	MP-1250	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B2 Secondary Crusher Discharge Conveyor	4,200 tph	NA	832'L x 60"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-285	Crushed Ore A/B Conveyor Transfer Point FFDC	4,100 dscfm	FARR	NA	NA	NA	IV.B and IV.C of Attachment "C"
	B3 Crushed Ore A Conveyor	4,800 tph	NA	919'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B4 Crushed Ore B Conveyor	4,800 tph	NA	2,346'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
017-286	Crushed Ore B/Tripper Conveyor Transfer Point FFDC	20,400 dscfm	FARR	NA	NA	NA	IV.B and IV.C of Attachment "C"
	B4 Crushed Ore B Conveyor	4,800 tph	NA	2,346'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B5 Crushed Ore Bin Tripper Conveyor	4,800 tph	NA	686'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-287	Crushed Ore Bin FFDC 1	22,900 dscfm	FARR	GS48/40	A21007001	NA	IV.B and IV.C of Attachment "C"
	B5 Crushed Ore Bin Tripper Conveyor	4,800 tph	NA	686'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Bin A	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 1	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 2	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 3	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 4	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Crushed Ore Belt Feeder 5	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 6	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B6 Crushed Ore Feed Conveyor	7,800 tph	NA	715'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B7 Crushed Ore Feed Transfer Conveyor	7,800 tph	NA	276'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-288	Crushed Ore Bin FFDC 2	20,000 dscfm	FARR	GS48/40	A21007002A	NA	IV.B and IV.C of Attachment "C"
	B5 Crushed Ore Bin Tripper Conveyor	4,800 tph	NA	686'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Bin B	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 7	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 8	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 9	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Crushed Ore Belt Feeder 10	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 11	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 12	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B6 Crushed Ore Feed Conveyor	7,800 tph	NA	715'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-289	Crushed Ore Bin FFDC 3	20,000 dscfm	FARR	GS48/40	A21007002B	NA	IV.B and IV.C of Attachment "C"
	B5 Crushed Ore Bin Tripper Conveyor	4,800 tph	NA	686'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Bin B	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 13	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 14	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 15	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Crushed Ore Belt Feeder 16	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 17	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 18	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B6 Crushed Ore Feed Conveyor	7,800 tph	NA	715'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-290	Crushed Ore Bin FFDC 4	20,000 dscfm	FARR	GS48/40	A21007002C	NA	IV.B and IV.C of Attachment "C"
	B5 Crushed Ore Bin Tripper Conveyor	4,800 tph	NA	686'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Bin C	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 19	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 20	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 21	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Crushed Ore Belt Feeder 22	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 23	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Crushed Ore Belt Feeder 24	3,646 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B6 Crushed Ore Feed Conveyor	7,800 tph	NA	715'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-291	Crushed Ore Transfers FFDC	10,200 dscfm	FARR	GS24/20	A21007012	NA	IV.B and IV.C of Attachment "C"
	B7 Crushed Ore Feed Transfer Conveyor	7,800 tph	NA	276'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Roll Crusher Surge Bin	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B8-A Roll Crusher Belt Feeder 1	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B8-B Roll Crusher Belt Feeder 2	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B9 Crusher Feed Conveyor 1	7,800 tph	NA	197'L x 96"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Crusher Feed Hopper 1	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-292	Roll Crusher FFDC	10,000 dscfm	FARR	GS24/20	A21007013	NA	IV.B and IV.C of Attachment "C"
	Roll Crusher	6,790 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B10 Roll Crusher Discharge Conveyor	7,800 tph	NA	751'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-294	Wet Screen Feed FFDC	3,500 dscfm	FARR	GS6BV	A21007015	NA	IV.B and IV.C of Attachment "C"
	B10 Roll Crusher Discharge Conveyor	7,800 tph	NA	751'L x 72"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Feed Bin	1,000 tons	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
017-327	B11-A Wet Screen Belt Feeder 1	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B11-B Wet Screen Belt Feeder 2	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen 1	3,395 tph	Metso	4285	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Wet Screen 2	3,395 tph	Metso	4285	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B12 Wet Screen Oversize Conveyor	3,900 tph	NA	820'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B13 Wet Screen Oversize Transfer Conveyor	3,900 tph	NA	227'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	B14 Wet Screen Oversize Shuttle Conveyor	3,900 tph	NA	94'L x 54"W	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Oversize Bin	NA	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Oversize Belt Feeder 1	2,205 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Oversize Belt Feeder 2	2,205 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Oversize Belt Feeder 3	2,205 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Oversize Belt Feeder 4	2,205 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Wet Screen Oversize Belt Feeder 5	2,205 tph	NA	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Ball Mill 1	3,420 tph	Metso	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Ball Mill 2	3,420 tph	Metso	NA	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Metcalf Regrind Mill 1	191 tph	Metso	VT-1000	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Metcalf Regrind Mill 2	191 tph	Metso	VT-1000	NA	Post-8/24/1982	IV.B of Attachment "C" (LL)
	Metcalf Concentrator Bulk Flotation	NA	NA	NA	NA	NA	IV.A and IV.E of Attachment "C" (721, 730)
Operation 018: Combined Molybdenum Flotation and Molybdenum Concentrate Processing Operations							
018-333	Trash Screen	375 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
018-334	Molybdenum Filter Discharge Hopper	6.93 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
	Molybdenum Filter Screw Conveyor	6.93 tph	NA	NA	NA	Post-8/24/1982	V.B of Attachment "C" (LL)
018-336	Combined Molybdenum Flotation	NA	NA	NA	NA	NA	V.A and V.C of Attachment "C" (721, 730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	NaHS Storage Tank 1	NA	NA	NA	NA	NA	V.C of Attachment "C" (730)
	NaHS Storage Tank 2	NA	NA	NA	NA	NA	V.C of Attachment "C" (730)
Operation 020: Crushing and Screening Plant							
020-019	Scalping Grizzly Screen	500 tph	Ludowici	VGF	LI-4220-19495	2005	XI.A of Attachment "C" (722)
	Primary Jaw Crusher	500 tph	Sandvik	JM 1208	770370	2007	XI.B of Attachment "C" (OOO)
	Conveyor Belt 1	600 tph	Dakota Fabricating	42"	1783	2005	XI.B of Attachment "C" (OOO)
	Triple Deck Screen	600 tph	Cedar Rapids	TSS6203-32	53277	2007	XI.B of Attachment "C" (OOO)
	Conveyor Belt 2	500 tph	Marco	575 H	86523-1	2007	XI.A of Attachment "C" (722) (when transferring to a stockpile), XI.B of Attachment "C" (OOO) (when not transferring to a stockpile)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3	500 tph	Marco	575 H	86523-1	2007	XI.A of Attachment "C" (722) (when transferring to a stockpile), XI.B of Attachment "C" (OOO) (when not transferring to a stockpile)
	Conveyor Belt 4	350 tph	Dakota Fabricating	40'L x 36"W	1794	2005	XI.B of Attachment "C" (OOO)
	Conveyor Belt 5	350 tph	Dakota Fabricating	60'L x 36"W	1784	2005	XI.B of Attachment "C" (OOO)
	Secondary Cone Crusher	350 tph	Sandvik	H4800	SW0770009	2007	XI.B of Attachment "C" (OOO)
	Conveyor Belt 6	350 tph	Dakota Fabricating	15'L x 36"W	1785	2005	XI.B of Attachment "C" (OOO)
Operation 021: Propane Emergency Engines							
021-367	Western King Site 1 Propane Emergency Generator	12.65 hp engine at 4,000 feet (14.8 hp engine rated) (7 kWe)	Generac	0052510 (GH-410)	4950968	11/1/2007	III.A and III.F of Attachment "B" (719, ZZZZ)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
021-368	Western King Site 2 Propane Emergency Generator	97.7 hp engine (60 kWe)	Cummins	GGHE-1207588	F 120356169	6/22/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-369	American Mountain Site 2 Propane Emergency Generator	97.7 hp engine (60 kWe)	Cummins	GGHE-1207560	F 120353966	6/21/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-371	Hoopes Hill Site 2 Propane Emergency Generator	97.7 hp engine (60 kWe)	Cummins	GGHE-1207560	F 120353965	6/21/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-372	Silver Basin Site 2 Propane Emergency Generator	97.7 hp engine (60 kWe)	Cummins	GGHE-1207560	F 120353964	6/21/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-373	Flagpole Propane Emergency Generator	36.14 hp engine at 4,000 feet (42.29 hp engine rated) (20 kWe)	Generac	0062500 (GT-999)	8603892	12/1/2013	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-374	Coronado Connex Propane Emergency Generator	12.65 hp engine at 4,000 feet (14.8 hp engine rated) (7 kWe)	Generac	0052510 (GH-410)	4939161	1/1/2008	III.A and III.F of Attachment "B" (719, ZZZZ)
021-376	Metcalf Robot Shack Propane Emergency Generator	12.65 hp engine at 4,000 feet (14.8 hp engine rated) (7 kWe)	Generac	0052510 (GH-410)	4962877	3/1/2008	III.A and III.F of Attachment "B" (719, ZZZZ)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
021-377	Garfield Connex Propane Emergency Generator	12.65 hp engine at 4,000 feet (14.8 hp engine rated) (7 kWe)	Generac	0052510 (GH-410)	4936206	12/15/2007	III.A and III.F of Attachment "B" (719, ZZZZ)
021-378	Shannon Shack Propane Emergency Generator	12.65 hp engine at 4,000 feet (14.8 hp engine rated) (7 kWe)	Generac	0052510 (GH-410)	4962812	3/1/2008	III.A and III.F of Attachment "B" (719, ZZZZ)
021-417	Guard Shack Propane Emergency Generator	12.65 hp engine at 4,000 feet (14.8 hp engine rated) (8 kWe)	Generac	0058821 (GH-410)	NA	4/20/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-421	Central SX Propane Emergency Generator	74 hp engine (35 kWe)	Cummins (Ford)	GGFD-5691512 (ESG-642)	I040691060 (04WK 25503)	4/1/2004	III.A and III.B of Attachment "B" (719, ZZZZ)
021-435	GSC Propane Emergency Generator	37 hp engine (18 kWe)	Kohler	CH1000EP	4233402161	11/29/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
021-436	Metcalf Mine Office Propane Emergency Generator	37 hp engine (18 kWe)	Kohler	CH1000EP	4233405151	11/29/2012	III.E and III.F of Attachment "B" (JJJJ, ZZZZ)
Operation 022: Prill Bins							

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
022-393	Prill Bin 1	90 tons	Unknown	Unknown	Unknown	1972	XII of Attachment "C" (730)
	Prill Bin Vent 1 (no filter)	NA	FMMI	Custom Fabricated	Custom Fabricated	NA	XII of Attachment "C" (730)
	Prill Bin 2	90 tons	Unknown	Unknown	Unknown	1972	XII of Attachment "C" (730)
	Prill Bin Vent 2 (no filter)	NA	FMMI	Custom Fabricated	Custom Fabricated	NA	XII of Attachment "C" (730)
	Prill Bin 3	90 tons	Unknown	Unknown	Unknown	1972	XII of Attachment "C" (730)
	Prill Bin Vent 3 (no filter)	NA	FMMI	Custom Fabricated	Custom Fabricated	NA	XII of Attachment "C" (730)
	Prill Bin 4	100 tons	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
	Prill Bin Vent 4 (no filter)	NA	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
	Prill Bin 5	100 tons	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
	Prill Bin Vent 5 (no filter)	NA	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Prill Bin 6	100 tons	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
	Prill Bin Vent 6 (no filter)	NA	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
	Prill Bin 7	100 tons	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
	Prill Bin Vent 7 (no filter)	NA	Unknown	Bradley Metals	Unknown	2010	XII of Attachment "C" (730)
Operation 024: Miscellaneous Fuel Burning Equipment							
024-420	Light Vehicle Propane Pressure Washer	0.318 MMBtu/hr at 4,000 feet (0.379 MMBtu/hr rated)	Landa	VNG4-3000C	11095719-100115	NA	II.A of Attachment "B" (724)
024-437	Locomotive Area Machine Shop Natural Gas Parts Washer	0.504 MMBtu/hr at 4,000 feet (0.60 MMBtu/hr rated)	Landa	VNG4-4000	P0103-45523	NA	II.A of Attachment "B" (724)
024-443	Natural Gas Small Space Heaters	33.39 MMBtu/hr at 4,000 feet (39.75 MMBtu/hr rated)	varies	varies	varies	varies	II.A of Attachment "B" (724)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Natural Gas Small Boilers	9.37 MMBtu/hr at 4,000 feet (11.16 MMBtu/hr rated)	varies	varies	varies	varies	II.A of Attachment "B" (724)
024-444	Propane Small Space Heaters	18.23 MMBtu/hr at 4,000 feet (21.70 MMBtu/hr rated)	varies	varies	varies	varies	II.A of Attachment "B" (724)
	Propane Small Boilers	0.101 MMBtu/hr at 4,000 feet (0.12 MMBtu/hr rated)	varies	varies	varies	varies	II.A of Attachment "B" (724)
Operation 025: Diesel Non-Emergency Engines							
025-430	Non-Emergency Diesel Pump Engine LS-136	173.8 hp	Caterpillar	CAT C6.6	6660 6906	1/31/2008	III.C and III.F of Attachment "B" (IIII, ZZZZ)
025-431	Non-Emergency Diesel Pump Engine LS-233	173.8 hp	Caterpillar	CAT C6.6	6661 7909	4/21/2011	III.C and III.F of Attachment "B" (IIII, ZZZZ)
AOS1: Morenci Concentrator Crushing Operations							
016-357 (AOS1)	VLE Conveyor Belt 1 (AOS1)	132.28 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
016-358 (AOS1)	VLE Dry Screen (AOS1)	132.28 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
	VLE Surge Hopper (AOS1)	NA	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
016-359 (AOS1)	VLE Roll Crusher (AOS1)	126.77 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
016-360 (AOS1)	VLE Conveyor Belt 2 (AOS1)	126.77 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
016-361 (AOS1)	VLE Conveyor Belt 3 (AOS1)	126.77 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
016-362 (AOS1)	VLE Wet Screen (AOS1)	126.77 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
	VLE Vertical Grinding Mill (AOS1)	125.66 tph	NA	NA	NA	Post-8/24/1982	II.B and II.D of Attachment "C" (LL)
002-033 (AOS1)	Fine Crushing Line A FFDC 2 (AOS1)	13,000 cfm	FARR	GS48	NA	2006	II.D of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3 (AOS1)	2,600 tph	FMMI	652'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-034 (AOS1)	Fine Crushing Line B FFDC 2 (AOS1)	12,000 cfm	FARR	NA	NA	2006	II.D of Attachment "C"
	Conveyor Belt 3 (AOS1)	2,600 tph	FMMI	652'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-035 (AOS1)	Fine Crushing Line C to 3B to 3 FFDC (AOS1)	13,900 dscfm	FARR	GS24	212577	2006	II.C and II.D of Attachment "C"
	Conveyor Belt 3B (AOS1)	1,300 tph	FMMI	96'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
	Conveyor Belt 3 (AOS1)	2,600 tph	FMMI	652'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-036 (AOS1)	Fine Crushing Line C to 3B to 3A FFDC (AOS1)	16,500 dscfm	FARR	GS24	212578	2006	II.C and II.D of Attachment "C"
	Conveyor Belt 3B (AOS1)	1,300 tph	FMMI	96'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3A (AOS1)	2,600 tph	FMMI	440'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-326 (AOS1)	Fine Crushing Line D FFDC 2 (AOS1)	13,000 cfm	FARR	GS24	212574	2006	II.D of Attachment "C"
	Conveyor Belt 3A (AOS1)	2,600 tph	FMMI	440'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-038 (AOS1)	3/4/5 FFDC (AOS1)	17,700 cfm	FARR	GS36	NA	2006	II.D of Attachment "C"
	Conveyor Belt 3 (AOS1)	2,600 tph	FMMI	652'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
	Conveyor Belt 4 (AOS1)	2,600 tph	FMMI	147'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
	Conveyor Belt 5 (AOS1)	2,600 tph	FMMI	1,086'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-039 (AOS1)	3A/4A/5A FFDC (AOS1)	17,700 cfm	FARR	GS36	NA	2006	II.D of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Conveyor Belt 3A (AOS1)	2,600 tph	FMMI	440'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
	Conveyor Belt 4A (AOS1)	2,600 tph	FMMI	150'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
	Conveyor Belt 5A (AOS1)	2,600 tph	FMMI	1,200'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
002-040 (AOS1)	5A/FOSB FFDC 1 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-10	2006	II.D of Attachment "C"
	5A/FOSB FFDC 2 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-11	2006	II.D of Attachment "C"
	5A/FOSB FFDC 3 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-12	2006	II.D of Attachment "C"
	5A/FOSB FFDC 4 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-13	2006	II.D of Attachment "C"
	5A/FOSB FFDC 5 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-14	2006	II.D of Attachment "C"
	5A/FOSB FFDC 6 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-15	2006	II.D of Attachment "C"

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	5A/FOSB FFDC 7 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-16	2006	II.D of Attachment "C"
	5A/FOSB FFDC 8 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-17	2006	II.D of Attachment "C"
	5A/FOSB FFDC 9 (AOS1)	3,500 cfm	FARR	NA	DC059-FO-18	2006	II.D of Attachment "C"
	Conveyor Belt 5A (AOS1)	2,600 tph	FMMI	1,200'L x 54"W	Custom Fabricated	1941	II.A and II.D of Attachment "C" (721)
	Fine Ore Storage Bin (FOSB) (AOS1)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)
AOS2: Morenci Concentrator Bulk Flotation Operations							
002-352 (AOS2)	Regrind Mill 1 (AOS2)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)
	Regrind Mill 2 (AOS2)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)
	Regrind Mill 3 (AOS2)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	Regrind Mill 4 (AOS2)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)
	Regrind Mill 5 (AOS2)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)
	Regrind Mill 6 (AOS2)	NA	NA	NA	NA	Pre-8/24/1982	II.A and II.D of Attachment "C" (721)
	Morenci Concentrator Bulk Flotation (AOS2)	NA	NA	NA	NA	NA	II.A, II.D, and II.E of Attachment "C" (721, 730)
AOS3: Metcalf Concentrator Tertiary Crushing Operations							
017-291 (AOS3)	Crushed Ore Transfers FFDC (AOS3)	10,200 dscfm	FARR	NA	NA	NA	IV.C and IV.D of Attachment "C" (LL)
	B7 Crushed Ore Feed Transfer Conveyor (AOS3)	7,800 tph	NA	276'L x 72"W	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	Roll Crusher Surge Bin (AOS3)	NA	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	B8-A Roll Crusher Belt Feeder 1 (AOS3)	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	B8-B Roll Crusher Belt Feeder 2 (AOS3)	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	B9 Crusher Feed Conveyor 1 (AOS3)	7,800 tph	NA	197'L x 96"W	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	Crusher Feed Conveyor 2 (AOS3)	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	Crusher Feed Hopper 1 (AOS3)	NA	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	Crusher Feed Hopper 2 (AOS3)	NA	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
017-292 (AOS3)	Roll Crusher FFDC (AOS3)	10,000 dscfm	FARR	NA	NA	NA	IV.C and IV.D of Attachment "C" (LL)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	HPGR Crusher 1 (AOS3)	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	HPGR Crusher 2 (AOS3)	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	HPGR Crusher Discharge Conveyor (AOS3)	3,395 tph	NA	NA	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
	B10 Roll Crusher Discharge Conveyor (AOS3)	7,800 tph	NA	751'L x 72"W	NA	Post-8/24/1982	IV.B and IV.D of Attachment "C" (LL)
AOS4: Combined Molybdenum Flotation with CO2 Injection							
018-336 (AOS4)	Combined Molybdenum Flotation (AOS4)	NA	NA	NA	NA	NA	V.A, V.C, and V.D of Attachment "C" (721, 730)
	NaHS Storage Tank 1 (AOS4)	NA	NA	NA	NA	NA	V.C and V.D of Attachment "C" (730)
	NaHS Storage Tank 2 (AOS4)	NA	NA	NA	NA	NA	V.C and V.D of Attachment "C" (730)

Process Number	Equipment Description	Maximum Rated Capacity	Make	Model	Serial Number	Date of Mfg.	Applicable Section or Condition
	H_2S Scrubber System (AOS4)	18,000 acfm	NA	NA	NA	NA	V.A, V.C, and V.D of Attachment "C" (721, 730)
AOS5: Primary Crushing and Overland Conveying Operations							
001-256 (AOS5)	Crushers (AOS5)	NA	NA	NA	NA	NA	I.A or I.B and I.D of Attachment "C" (721/LL)
	Pollution Control Device for Crushers (AOS5)	NA	NA	NA	NA	NA	I.C and I.D of Attachment "C"
	Conveyor Belts (AOS5)	NA	NA	NA	NA	NA	I.A and I.D of Attachment "C" (721)
	Pollution Control Device for Conveyor Belts (AOS5)	NA	NA	NA	NA	NA	I.C and I.D of Attachment "C"